MODERN SCHOOL ORGANISATION

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PREFACE

THE educational system of any community has for its function the implementing of the basic principles upon which that community is based so far as they relate to the preparation of children, young people, and adults, for a full life within the community.

Organisation is not an end in itself. It must always be related to the educational aims of the community. The organiser must have before his mind continually the questions "To what end" and "For what purpose." Organisation may be perfect, but if the end is a wrong one, effective organisation in its service will only add to the evil wrought by the wrong aim.

Increases in the speed and variety of means of communication have increased the tempo of life. This means that any lag between theory and practice becomes a source of increasing tension in the community. Further, these increases in power of communication have developed a different kind of social life—one demanding new social techniques. We have to live together in many respects, or perish. The need for planning our world becomes more and more apparent, and this need will bring with it new demands upon educators. In those spheres of life where planning is essential there will have to be a relinquishment of some things previously regarded as liberties. This is particularly true in the economic sphere. But the resulting security should, under democratic control, make for increased and wider liberties in those fields which provide the proper spheres for individual creative and constructive activities. The schools will have to re-orientate themselves and train the children for the necessary new social techniques. The speed at which events move to-day makes any time lag a source of peril. The children now being educated must become willing co-operators in the field of collectivist living and constructive individuals in those fields where this is desirable. Only so can they serve their society and live full and happy lives themselves.

It is hoped that this volume will aid students to see this vital connection between aims and organisation, and that it will assist them to make organisation a good servant in the cause of the development of the truly democratic society. For purposes of reference a list of the 52 diagrams including graphs, statistical tables, school plans, etc., incorporated in the book is given in Appendix III.

I owe much to a great number of my colleagues. The number is so great that I cannot possibly mention them all by name. If I cannot do this I thank them most sincerely for their help and stimulation, without which this volume could not have been written. I must acknowledge the debts which I owe to Mr. A. Greenough, B.Sc., for reading the first typescript of this volume and for his many suggestions; to Messrs. N. E. Whilde, B.Sc., and R. Keane, M.A., for reading so thoroughly and so critically the book in proof; and, above all, to Miss E. M. Hubbuck for the most valuable and willing assistance she has given in a great variety of ways.

Chesterfield, June 1941. H. G. STEAD.

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SCHOOL ORGANISATION

CHAPTER I

INTRODUCTORY

AT the invitation of some of his disciples an Indian philosopher once visited Europe. He met his followers at a conference held at The Hague, and at the last of the meetings to be held it was proposed that an organisation be set up to propagate the ideas of the master. Whereupon the Indian took the first boat back to his own country.

The story illustrates the danger inherent in all organisation. In brief, this danger is that the organisation may come to be viewed as more important than the idea or ideas which it is set up to serve. Thought is free and unconfined; it is living, it grows and is dynamic. Organisation limits and confines; it may be deadly and static. The evil goes further than this. In the course of time the organisation may become so important that the original reason for its institution is forgotten. Organisation, like fire, is a good servant but a very bad master. There are those who detest organisation and those who worship it, and the history of mankind is full of examples of wars and struggles and controversies waged round the maintenance or destruction of some effete organisation. Long before this happens sight has been lost of the living idea which brought the organisation into being, or at any rate it has ceased to hold the major position. Its place has been taken by the organisation, the maintenance of which has become all important.

To say this is neither to hold that organisation is undesirable nor to maintain that it is possible to proceed without sound organisation. But it must always be remembered that organisation is a means and not an end in itself. It is the instrument by which the desired aim may be achieved. It must never be allowed to become the end itself, but must always be subordinated to the purpose for which it was set up. This indicates the need for a critical attitude towards all organisation. For as ideas change, as the purpose changes, so must the organisation be varied if the new ideal is to be achieved. Further, since ideas and ideals are dynamic and not static, it is necessary that organisation should be fluid. If it is not there will be disharmony between the ideal and the reality—between what is professed and what is done.

These facts with reference to organisation in general, merit special attention when the subject of school organisation is under review. In the first place, a State system of education always tends to become over organised. The bureaucratic mind loves organisation above all things, and the all too familiar jibes at "red tape" are more than occasionally justified. Organisation may easily result in a deadly uniformity and in an efficiency which may be mechanically perfect but which is not education. There is a story told, no doubt apocryphal, of a Director of Education who was in the habit of pushing a bell in his office and demanding from the subordinate who answered his summons information such as how many children in the city under his control were doing multiplication of money sums at that moment. And an answer had to be forthcoming. There is no doubt that the organisation of both the Education Office and the schools was perfect. But it is doubtful if this organisation was for the purpose of Education.

Another point which needs special attention when educational organisation is under consideration arises from the fact that as social ideals change, so do those of education. The first aim of State Elementary Education in this country was to produce a literate people. This was a *mass* task. It fixed the curriculum—the 3 R's. It fixed the technique—that of large classes taught in the mass. It determined the whole of the organisation of the schools, the type of building, the kind of furniture, the layout of classrooms, and every detail of class and school management. The Reports of the Hadow Committees brought to a focus a conception of education which had gradually been replacing the old one of the forming of a literate people. The new purpose of education was to be the development of a cultured people, fit and efficient citizens of a modern democratic State.

Only those who have worked under the influence of both ideals can realise how great has been the change in organisation brought about by this change in the objective. The whole planning of the school has changed; the rooms required have changed both in number and type; the technique of teaching has had to be revised. The parts played by teacher and taught have undergone change. The curriculum has changed, and with these changes has come an entirely new type of organisation, both of the educational system and of the individual school. And, once more, those who have witnessed the coming of the new ideas and the new organisation which has been devised to give expression to it will realise how great a barrier to progress an organisation can be after it has outlived its usefulness.

It is inevitable that ideas must always be ahead of organisation, and, therefore, organisation should always be flexible enough to allow of experiment and progress. This can only be the case where the organisation is itself subject to periodical overhaul and critical examination. It is not easy to criticise and, if necessary, replace an organisation or any part of an organisation which one has helped to construct. But when the choice is between life and death, growth or decay, there is no real alternative.

Organisation, then, is necessary, and is the only means whereby orderly progressive work can be carried out. But it has to be carefully watched and reviewed. It must never be the end of educational effort, but only the means to the end. It is always a little behind the advanced thought of any age, but it incorporates, or should incorporate, all the best thought of all previous ages—all that thought which has stood the test of real experiment. It should be elastic enough to be able to incorporate new ideas, yet secure enough to form the background from which educational experiments can be made. The organisation of any school system, or of any school, has to serve a dual purpose. First of all it should furnish the safe background against which the normal work of education is carried on. Secondly, it should supply the stimulus to experiment with new methods, in order that the educational ideal of the society which the system and the schools serve, should be the more fully realised.

The ultimate and essential connection between the objectives of education of any society and the organisation devised to further these objectives can be seen throughout the history of education, whether it is the field of *theory* or that of the *practice* of education that is considered. In the realm of theory Plato sketched an organisation of education devised to develop citizens who would in practice act out the principles upon which that Republic was to be based. So, too, Sir Thomas More in *The Governor*, Machiavelli in *The Prince*, Milton in his *Tractate*, Commenius in his *Great Didactic*, Rousseau in *Emile*, all felt it necessary to stress the need for a new or largely reconstructed system of education, if the ideals which they wished to see put into practice in the State were to be more than idle dreams.

In the realm of practice itself there is no need to look beyond present-day Europe. Russia, Italy, Germany, England, and France; in each of these countries the organisation of education reflects the ideals of the State. This is perhaps more marked in those countries in which there has been in recent years some radical change in the conception of the State and its function. In Russia,

Germany, and Italy there has been seen a complete reorganisation of the national system of education with the aim of making it an effective weapon in the propagation of the State ideal. The possibility of free experiment has been largely eliminated. Organisation has been made rigid and uniform. It is effective for its purpose, but it is open to doubt whether that purpose is to be commended. Sometimes it would appear to aim at the conditioning of children, adolescents, and adults in order that they may think, act, and speak in accordance with the orthodox pattern. In England and France the organisation of education is equally for the purpose of maintaining the principles upon which the State is based. But here the State is at least attempting the difficult task of achieving a democratic regime. The ideals of true democracy have not yet been achieved in any State, and the gaps between theory and practice lead to strange contradictions in the sphere of education. The basic truth is that there are two essential rights of all citizens of a democracy, that to adequate nutriment and to adequate education. It is futile to talk about freedom of speech if the people are not nourished and educated, *i.e.* if they have not the physique nor the mental development with which to think. Universal suffrage is mockery without food and education.

All this illustrates the close connection between school organisation and the ideals of the community of which the school is part. Before the organisation of the whole system of education is planned, the objectives of the society must be clearly visualised. Before the organisation of any school within the system is planned its relationship to the whole system and the part it should play in the development of the whole ideal should be considered. So, too, the class has to assist in achieving the aim of the school. But always, in any sound system of organisation, there will remain room and opportunity for experiment and for adventure along new paths. Again, the two essentials of good organisation make their appearance —the establishment of the ordered and safe background against which the normal work can proceed, and the provision of a base from which the adventurer can set out on new paths.

CHAPTER II

THE ENGLISH EDUCATIONAL SYSTEM

IT is an old joke that the most marked feature of the English educational system is that it is not a system at all. It has been pointed out that the Public Schools are not public but private, that the Secondary School system is one separate from the Elementary School system and not one arising from it, and that the Elementary School system gives the only education received by the majority of the nation's children. All this is true, but a closer examination discloses that though historically different parts of the whole system had widely diverse origins, yet the movement has been towards the development of a system which shall incorporate them all. The process is by no means complete, and the obstacles still remaining to be overcome are serious ones, largely because of their roots in the past. In a country which emerged from Feudalism, to find itself successively a nation of village craftsmen, of shopkeepers and industrialists, it is not surprising to find contradictions within the existing systems of education, due largely to the maintenance of tradition and the existence of "fossils" of an older culture in the newer one. The reports of the Hadow Committee were motivated by an effort to combine the Elementary School system and the Secondary School system into one. Some progress has been made—the standards of equipment and work in the best modern schools approach more and more those of the Secondary Schools. But although this brings nearer a genuine fusion of the two, the essential steps remain to be taken. Not even the Hadow Committee attempted to state the place of the Public Schools in the national system.

The origins of the elements of the existing system are of interest, for in them is to be found the real reason for much existing organisation. In the Mediaeval society three classes emerged—those who ruled, those who prayed, and those who worked. The qualities necessary for the first class were those of physical strength and courage, for the rulers were also the fighters, and from the demand for an education based on the development of these qualities arose the Public School system. Qualities needed by the second class were those of interpretation, and this class also gradually assumed the duties of administration, therefore their education had to include Latin and the interpretation of textual matter—and from

it developed the Secondary School system. There were left the workers, needing education in their craft. In the early days of the craftsmen, journeymen, and apprentices, this education was given by the master craftsman, and was, within its limits, sound and thorough. But there came the need for change. First came the factory and machine production of goods, needing only machine minders instead of skilled workmen. Secondly, the change in the political organisation of the country from rule by the few to parliamentary government and universal suffrage led to the demand for an education that would produce citizens who could think and act politically rather than those who could think and do productively in the industrial sphere. Now the demand is for citizens who can think and do productively in both the political and industrial spheres.

The three systems developed largely in isolation. The divisions between them were vertical; movement from one to the other was a rare occurrence. Mediaeval society was static—so were the educational schemes to which they gave expression. As the clear cut distinction between social classes tended to disappear, so movement between the educational systems became more free. But the old divisions are still to be seen to-day, and account for the vertical cleavages found within the whole system. Far more breaking down of this barrier has taken place between the Elementary and the Secondary system than between the latter and the Public School system.

The Hadow Committee in its first report upon the Education of the Adolescent attempted to replace the vertical division between the Elementary and the Secondary School systems by a horizontal one between Primary Schools and Secondary Schools. The former were to cater for children up to the age of 11 +, the latter for all children over 11 +. There were to be many types of Secondary Schools—the existing Secondary Schools which were to be renamed Grammar Schools (a recognition of the origin of these schools), the Central Selective School, the Modern School, and Senior classes attached to Primary Schools. After the publication of this report reorganisation proceeded apace until progress was arrested by the outbreak of the war in 1939. But although the work done has brought the ideals of the Hadow Committee nearer to realisation, the crucial steps remain untaken. Therefore the present is a period of transition. The point of departure is known; the objective is known; at present education is on the march. This means in practice that there are schools of the type developed under the older system existing side by side with those developed

under the impetus of the new ideas. The " reorganised " system of Elementary Schools consists of Infant Schools for children up to the age of 8, Junior Schools for children from 8 to 11 +, and Senior Schools for those above the age of 11 + In " unreorganised " areas there still exist some all-age schools catering for children throughout the whole range of Elementary Education, *i.e.* from 5 to 14, or schools for " Infants," *i.e.* for children up to the age of 8 or 9, and " Seniors "—all children between 8 or 9 and 14.

The essential differences between the organisation of the English educational system under the older view and that which has resulted from " reorganisation " is indicated in Diagrams I and II (Technical Education excluded for the time being).

DIAGRAM I

The Old System—Pre-Hadow

(excluding Technical education)

Public Schools	Secondary Schools	Senior Schools
↑	↑	↑
Preparatory Schools		
↑	Preparatory Departments	Infants' Schools
Private Tutors and Governesses		
(Age range 5-18 +)	(Age range 5-16 +)	Age range 5-14 +

DIAGRAM II

The " Hadow " System

(excluding Technical education)

Public Schools	Secondary Schools of various types for all children of 11 +
↑	↑
Preparatory Schools	Primary Schools for all children below 11 +
↑	
Private Tutors and Governesses	
(Age range 5-18 +)	(Age range 5-16 +)

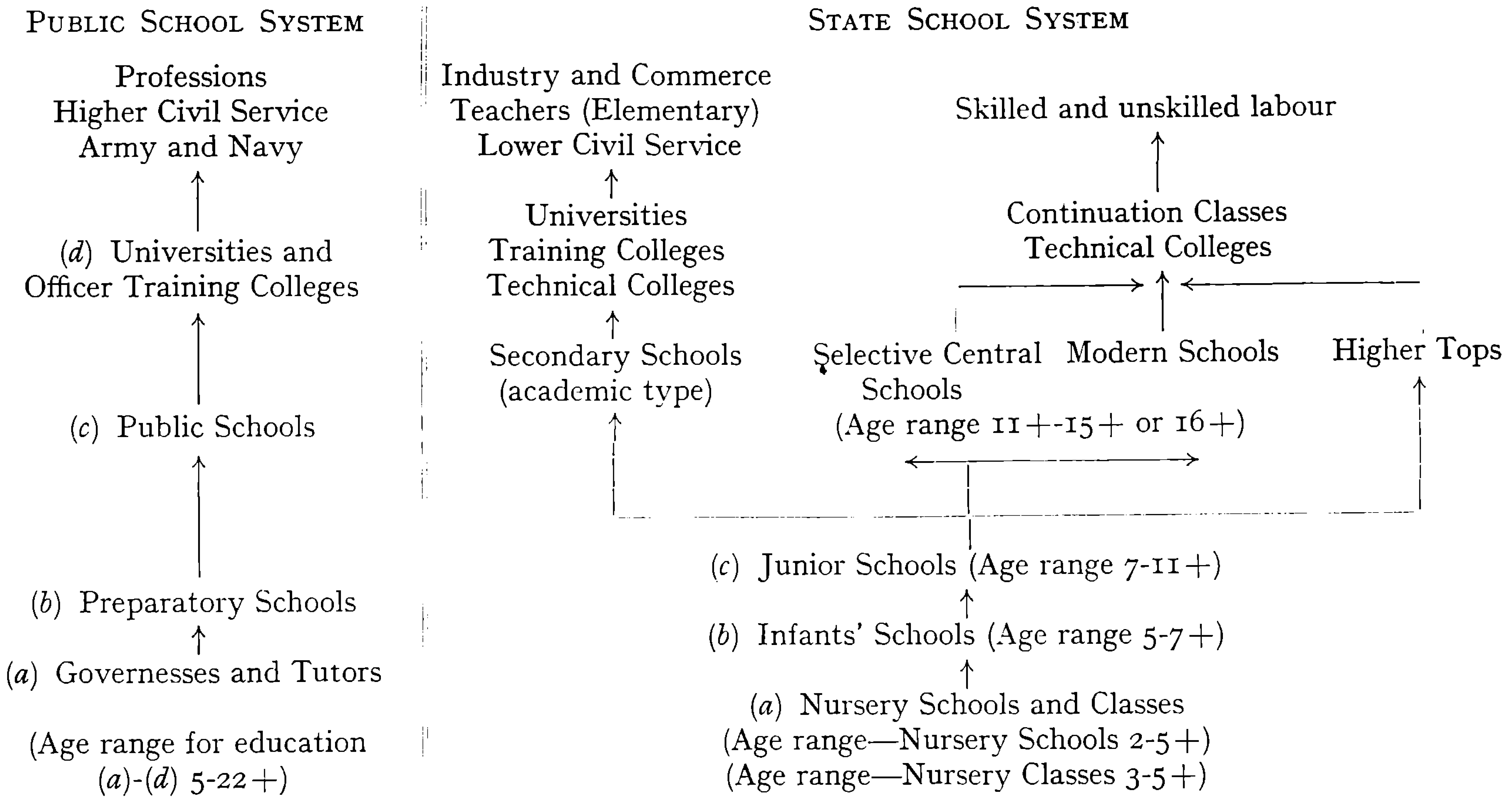
Neither of these diagrams illustrates the actual state of affairs to-day. In some parts of the country the organisation remains that indicated in Diagram I; in others there has been an attempt made to reach the form indicated in Diagram II. In many areas the situation can be best described by saying that education is on the march from Diagram I to Diagram II. In this connection it should be noted that a general school leaving age of sixteen is essential before the second stage can be completely achieved.

Further, in Diagram II no account has been taken of the various kinds of Secondary Schools, nor of the relationship which exists between the schools and the Universities and Technical Colleges on the one hand and various types of employment on the other. Diagram III attempts to give a pictorial representation of the relationship of all forms of education and employment as visualised by the Hadow Committee.

We are concerned here with the State system only. The organisation of the various types of schools included within the system will be discussed in the appropriate chapters. But it should be noted here that there is a tendency to combine stages (*a*) and (*b*), and to make one type of school which shall cater for the whole age range from 2 to 7 +. With the approval of the Board of Education experiments in this type of organisation are now in progress. Generally speaking, however, what is found in practice are either separate Nursery Schools dealing with children from 2 *to* 5, and separate Infants' Schools dealing with children from 5-7, or Infants' Schools which have Nursery Classes attached, such classes admitting children from 3 *to* 5, or, of course, just Infants' Schools with no nursery provision. The difference between the commencing ages for Nursery Classes and Nursery Schools is due to the fact that the latter come under different regulations of the Board of Education. The former are part of the educational system proper, and three is the lowest age at which this caters for children, while the latter are part of the special services under the control of the Medical Branch of the Board of Education, and can admit pupils at the age of two years. The relative merits of the two schemes will be discussed later. It is mentioned here only to explain the diagrams.

In some areas the Infant and Junior Schools are combined in one unit, although where this is done the organisation of the two departments of the school is normally kept distinct. The adoption of this expedient is often due to the nature of the accommodation which was available in existing schools when reorganisation was carried out. It is clear that these variations make possible a

DIAGRAM III


PUBLIC SCHOOL SYSTEM
Professions
Higher Civil Service
Army and Navy
(d) Universities and Officer Training Colleges
(c) Public Schools
(b) Preparatory Schools
(a) Governesses and Tutors
(Age range for education (a)-(d) 5-22+)
STATE SCHOOL SYSTEM
Industry and Commerce
Teachers (Elementary)
Lower Civil Service
Universities
Training Colleges
Technical Colleges
Secondary Schools (academic type)
Skilled and unskilled labour
Continuation Classes
Technical Colleges
Selective Central Schools
Modern Schools
(Age range 11+-15+ or 16+)
Higher Tops
(c) Junior Schools (Age range 7-11+)
(b) Infants' Schools (Age range 5-7+)
(a) Nursery Schools and Classes
(Age range—Nursery Schools 2-5+)
(Age range—Nursery Classes 3-5+)

number of alternatives, all of which may be found in practice. There may be (up to and including the Junior School):—

(*a*) Nursery Schools—Infants' Schools—Junior Schools.
(*b*) Nursery Schools—combined Infant and Junior Schools.
(*c*) Infants' Schools—Junior Schools.
(*d*) Infants' Schools with Nursery Classes—Junior Schools.
(*e*) Combined Infant and Junior Schools.

Generally speaking, the trend is for there to be some nursery provision as a preparatory stage to the Infant School, and for the Infant and Junior Schools to be separate units. It is necessary to have a clear view of the general organisation before considering the variations from it.

Infants' Schools are co-educational. A variation of practice is to be found in the Junior School. Some are single sex schools and some co-educational. This is another point upon which discussion must be deferred.

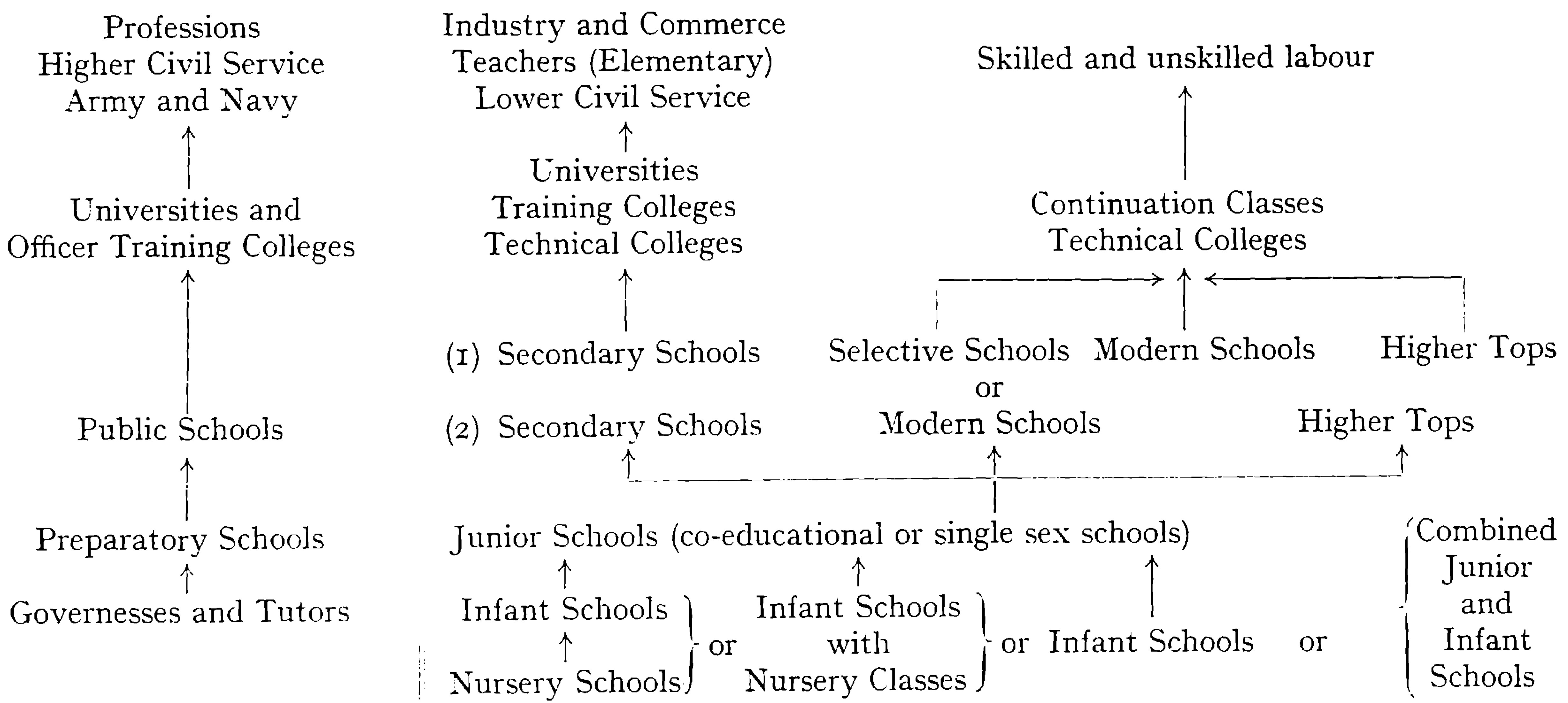
Similarly, at the upper range of the school systems variations are to be found. Some authorities have Secondary Schools, Selective Senior Schools, Modern Schools, and " Higher Tops "—senior classes in schools also accommodating younger pupils. This latter arrangement is common in the rural areas, although in many cases modern schools have been erected in some geographically central position in order to provide suitable facilities for the older children from a number of village schools. These variations will be considered in the chapter which deals specially with the Senior School.

These facts indicate that Diagram III, while it represents the organisation of the State system of education as visualised by the various Hadow Committees, does not represent the organisation actually in force in the country to-day. It is difficult to illustrate this by a single diagram because reorganisation has reached different points in different areas of the country, and also because of the degree of freedom left to Local Authorities. Within the general framework of the national scheme there are local variations. Diagram IV is an attempt to indicate the general position, but the student should note that some possible variations have been omitted in order not to overweigh the diagram with detail.

In 1938 the Consultative Committee of the Board of Education issued a further report, commonly called the Spens Report, after the Chairman of the Committee—Mr. Will Spens. The Committee had been given the following Terms of Reference:—" To consider and report upon the organisation and inter-relation of schools,

DIAGRAM IV

PUBLIC SCHOOL SYSTEM — STATE SCHOOL SYSTEM



other than those administered under the Elementary Code, which provide education for pupils beyond the age of 11 +, regard being had in particular to the framework and content of the education of pupils who do not remain at school beyond the age of about 16."

It will be observed that these terms of reference expressly exclude from consideration all those schools for children of 11 + which were specially considered in the Hadow Report upon the Education of the Adolescent. That Report had recommended that such schools for children of 11 + should be considered as various forms of provision for Secondary education, *i.e.* as Secondary Schools. Of these schools the Spens Report dealt with the existing type of Secondary Schools only, *i.e.* those which the Hadow Report had termed Grammar Schools and Technical Institutions.

The outstanding recommendations of the Report was that a new type of school, to be known as the Technical High School, should be established. The importance of this recommendation makes the actual words of the Report worth quoting.

" We are convinced that it is of great importance to establish a new type of higher school of technical character quite distinct from the traditional academic Grammar School. As a first step to this end, we recommend that a number of existing Junior Technical Schools orientated towards the engineering and building industries and any other Technical Schools which may develop training of such a character as (*a*) to provide a good intellectual discipline altogether apart from its technical value, and (*b*) to have a technical value in relation not to one particular occupation but to a group of occupations, should be converted into Technical High Schools, in the sense that they should be accorded in every respect equality of status with schools of the grammar school type. We recommend that such schools, which would recruit their pupils at the age of 11+ and provide a five-year course up to the age of 16+, should be called Technical High Schools to distinguish them from full-time Technical Schools of other types which provide courses for pupils beginning at the age of 13 or 14.

" We recommend that pupils should be recruited for Technical High Schools at the age of 11+ by means of the general selective examination by which pupils are at present recruited for the Grammar Schools.

" The curriculum for pupils between the ages of 11+ and 13+ in Technical High Schools should be broadly of the same character as the curriculum in other types of secondary school of equal status.

" For pupils above the age of 13 the curriculum should be designed so as to provide a liberal education with Science and its applications as the core and inspiration. The subject matter would be English, History, Geography, Mathematics, Science, Engineering Drawing, Practical Crafts in the workshops, Physical Education, and the Aesthetic subjects, together with continued study of a foreign language for those pupils who have shown that they are capable of profiting by it.

"We consider that the fee system in Technical High Schools should be the same as that in Grammar Schools situated in the same administrative area.

"We recommend that a new type of leaving certificate should be established for pupils in Technical High Schools on the basis of internal examinations founded on the school curriculum, and subject to external assessment by assessors appointed or approved by the Board of Education in order to afford an adequate guarantee for a uniform minimum standard of certification in Technical High Schools throughout the country. We recommend that the arrangements for this leaving certificate should be planned on lines similar to those in use for the existing examinations for National Certificates."

Junior Technical Schools had, of course, been in existence for some time. These usually recruited their pupils from various types of Senior and Secondary Schools at the age of 13 +, and the courses organised by the schools lasted for two or three years, *i.e.* there was a leaving age of 15 or 16. With regard to these schools the Spens report recommended that:

"Since the word 'Junior' in the expression Junior Technical School has rather misleading associations, we recommend that henceforth the expression 'Technical School' be used as a general term to describe all Junior Technical Schools recruiting their pupils at the age of 13+ and providing courses which last for two or three years. The name 'Technical School' will thus embrace both the specifically vocational schools hitherto known as Trade Schools, which prepare for definite occupations, and those schools which prepare for a range of related trades and occupations, viz., the Junior Technical Schools for boys, bearing on the engineering and building industries, the schools designed to prepare girls for home management, and the Junior Commercial Schools.

"We have come to the conclusion that the Junior Technical School for boys, associated with the engineering and building industries have succeeded in developing their curriculum on a broad scientific and realistic basis, and we are of opinion that for certain types of boy the education provided by this curriculum and the practical method of approach to various subjects, *e.g.*, Science, Mathematics, and Engineering Drawing, best develop their capacities, and in consequence provide the course most appropriate for them whatever occupation they may eventually choose."

This provision for Technical education adds to the facilities shown in Diagrams III and IV. It should be noted that while the age of transfer to the new Technical High Schools is to be 11 +, the first two years of the course are to be the same as those in the existing Secondary Schools. The other Technical Schools (those previously known as Junior Technical Schools, Trade Schools, and Junior Commercial Schools) are to continue to recruit their pupils at 11 +.

The whole of the State system is shown in Diagram V, which also attempts to show the way in which the various parts of it are inter-related. It must be remembered that this represents the full and complete system. In some areas certain forms of provision will be missing; in other areas alternative forms will be provided. This is bound to be the case when the Central Authority leaves a measure of independence in educational affairs to the Local Authority. Further, the diagram does not show the provision made for children suffering from various defects—mental or physical. There are, of course, schools for the blind, the deaf, the dumb, open air schools for other physically defective children, special schools for mentally defective children, and schools for delinquents. All these have their place within the general system, but it is impossible to include them in the diagram. They will be further discussed in the chapter which deals with this type of educational provision.

The system may be summarised in another way. At the age of two a child may enter a Nursery School if one exists in his area, and continue there until he is five. At the age of three he may enter a Nursery Class attached to an Infants' School. When he becomes five he may

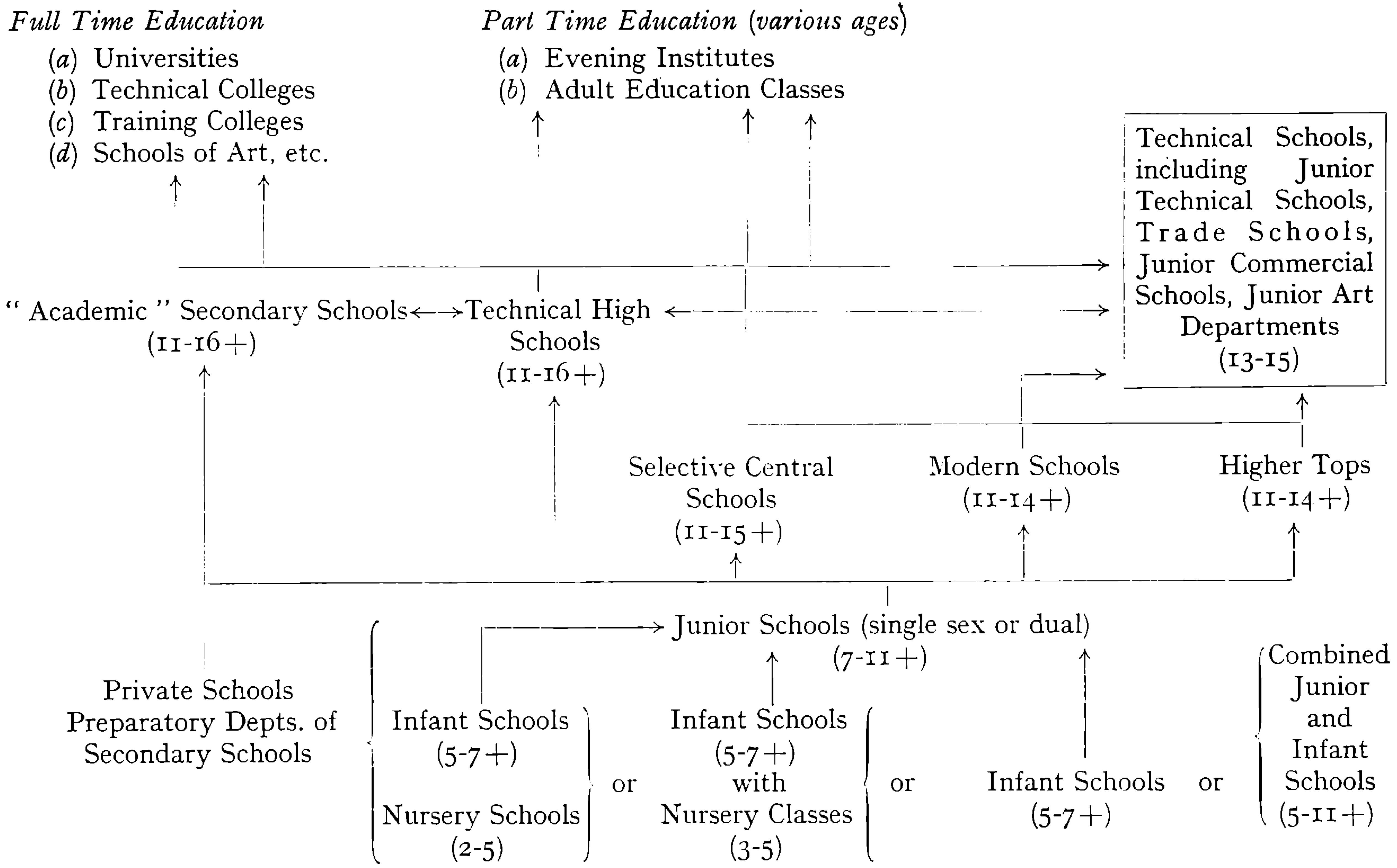
(*a*) Be educated by a Tutor or Governess;

(*b*) Attend a private school, gain admission to the preparatory department of a Secondary School, or attend an Infants' School.

At the age of about 7 + he may continue to be privately educated, may continue in the Junior Department of the Secondary School, or attend a State Elementary Junior School. At 11 + he may (providing he satisfies the conditions laid down) enter a Secondary School, a Technical High School (where one exists), a Selective Central School, or a Modern School. Usually it is his performance in a transfer examination which is usually held at this age which determines the type of school he will attend. At the age of 13 some of those attending Modern or Selective Schools and, occasionally, Secondary Schools may be transferred to Technical Schools (formerly Junior Technical Schools) for a two or three year course. Those who proceed to Secondary Schools or Technical High Schools usually remain to 16 +; those attending Central Selective Schools or Technical Schools to 15 +, while those who attend the Modern Schools usually leave at 14 +. Part time education is provided in Junior Evening Institutes for adolescents from 14 + to 16, and in Senior Institutes and the part time courses

DIAGRAM V

THE STATE SYSTEM OF EDUCATION



at Technical Colleges for older students. Extra-mural classes organised by Universities, bodies like the Miners' Welfare Committee, the Workers' Educational Association, and other organisations also provide continuative education for adult students.

This brief sketch of the English State system of education will furnish the background against which the organisation of each separate type of school and of the classes within the schools can be considered. It should be remembered that when the European war broke out the system was in process of drastic reorganisation. The roots of the system in the past must be understood before it is possible to assess the obstacles and difficulties to be overcome. The process of reorganisation has been temporarily suspended by the war. But if the experience of the past is any guide, then there will be a renewed interest in educational affairs when the war concludes. This renewed interest will be based inevitably upon a critical review of the system with a desire to strengthen those points at which it can be shown to have been weak. No doubt technical and physical education will receive much attention. So, too, will the question of education in human relationships and in citizenship. Perhaps it is as well that the new system has not become too rigid before this review takes place. The organisation of education in a democracy is a difficult task. By comparison the Dictator has no educational problem at all, for he is training and conditioning the masses and not developing individuals. For this reason the organisation of schools in a Democracy looks less "tidy" than the organisation under a Dictatorship. Those to whom organisation appeals often sigh for the rigid framework of the system in the Totalitarian State. But in a Democracy organisation must be fluid, since life in such a State is itself more fluid. It must always be subordinate to the purpose for which it is set up, and never be the main objective. It provides the background for orderly work and also the base from which adventures along new paths into new territory can be made.

CHAPTER III

THE ADMINISTRATION OF THE SYSTEM

THE educational service in England is administered jointly by the Government and the Local Education Authorities. The Government acts through the Board of Education, the President of which is the responsible minister. He is assisted by the Parliamentary Secretary to the Board. The Board itself never meets. The name is an interesting legacy from the past. Originally there *was* a Board, consisting of a President appointed by the Crown, the Lord President of the Council (unless appointed President of the Board), the Principal Secretaries of State, the First Commissioner of the Treasury, and the Chancellor of the Exchequer. This Board was constituted on the 7th August 1899, and commenced operations on 1st November 1900.

Nowadays "The Board" denotes the permanent staff of officials in London together with the Inspectorate staff, whose main function has changed in recent years. Whereas at one time they were Inspectors in the literal and rigid use of the word, they are now liason officers between the Board, the Local Authorities, and the schools. They still inspect schools and issue reports upon them, but this is by no means their chief duty, nor is it their most important one. They advise Local Authorities on a wide range of topics—a range as wide as the widest conception of education. They make representations to the Board on behalf of the Local Authorities; and they are concerned in the settlement of such difficulties and controversies as may arise. A wise and understanding Inspectorate is essential to the smooth working of the system.

The Local Authorities of England and Wales number 315 and are of two types, called Part II Authorities and Part III Authorities respectively. There are 145 of the former type and 170 of the latter. A Part II Authority has control of all State educational provision within its area, subject to compliance with the regulations of the Board of Education. A Part III Authority controls only those schools which come under the Elementary Code. The provision for Secondary education in such areas is under the control of the Part II area in which the Part III area is geographically situated. The areas vary very considerably in size. The Counties and the County Boroughs are Part II Authorities; the non-County Boroughs

and some Urban Districts are Part III Authorities. Excluding the London County Council, the largest Part II Authority is the West Riding division of Yorkshire with an Elementary School population of 147,000. The largest Part III Authorities are Rhondda (Wales) Urban District with an Elementary School population of 19,000, and Ilford (England) with one of 16,600. The smallest Part II Authority is Rutland County in which the Elementary School population is 2000, and the smallest Part III Authority is Tiverton with a corresponding population of 850. It is clear that whether an area is a Part II or a Part III Authority does not depend either on its size or upon its educational efficiency. It depends entirely upon other circumstances. A County is always a Part II Authority, and so Rutland, with a school population of 2000, and the West Riding of Yorkshire with one of 147,000 are both Part II Authorities. With regard to towns, any County Borough is a Part II Authority—other towns are not.

The need for a revision of areas of educational administration has been apparent for a long time, and has become urgent since the development of reorganisation. Although schemes of co-operation and co-ordination can be devised between two Authorities each concerned with the work of education in a given area, only unified control can make for unity of purpose and for efficiency. Many solutions to the existing state of affairs have been suggested. A Part III Authority *may* relinquish its powers with respect to education to the Part II Authority in whose area it is geographically situated. The suggestion has been made that all Part III Authorities should thus commit suicide. This would leave the Counties and the County Boroughs as Authorities for education. But the variations in the size and efficiency of the Authorities would remain. The only change would be in the number of Authorities. There would still remain as Part II Authorities, apart from the Counties, such County Boroughs as Canterbury with a school population of 2600. Amongst the Authorities which would disappear would be some of those whose record in educational matters stands high; amongst those who remained would be some whose reputation is low.

A second suggestion which has been put forward as a solution to this problem is that existing Part III Authorities should be given full powers for education, *i.e.* that they should have control of all forms of educational provision in their areas and not only of schools working under the Elementary Code. This would mean a loss of powers to the County Authorities in whose areas the Part III Authorities were situated. In general it would mean that the Counties would be left with the control of education only in the

rural areas, in smaller towns, and in newly built up areas in which the controlling authority had not been given educational powers. This solution would leave the number of Authorities unchanged, and the same wide variation in size and in efficiency would remain. It would only make all Authorities of one type.

This problem is bound up with that of Local Government in general. At one stage of development powers were given to Local Authorities with respect to a number of services—Health, Education, Libraries, Water, Transport, Electricity, Housing, etc. Gradually the need for co-ordination has become apparent, and such services as Transport, Electricity, Water, Fire-fighting tend to be controlled on a wider basis than covered by a single Local Authority. But the question of what constitutes a suitable area (size and population) for Local Government purposes has not been determined. It would appear that the question of areas of educational administration is bound up in this wider one. One of the urgent tasks of educational organisation and administration is a careful survey of this problem and a solution to it which shall be based upon educational efficiency rather than upon prejudice and tradition.

The cost of the educational service is shared between national taxation and the local rates. Approximately 50 per cent. comes from each source. Towards the cost of Elementary Education the Board of Education pays grants upon a somewhat complicated formula. The main points of this formula are that grant is paid at the rate of 60 per cent. upon teachers' salaries, 50 per cent. on special services (including special schools, nursery schools, school medical services, feeding of children, etc.), and 20 per cent. upon remaining expenditure (including loan charges, administration, fuel, light, repairs, furniture, equipment, stationery, etc.). The amount of grant payable is also dependent upon the average attendance of children for the area as a whole.

The formula needs adjustment to meet the new circumstances which have arisen since it was devised. Occasionally the Board vary the rate of grant payable on some specific item, in order to meet some special set of circumstances. For example, after the publication of the Hadow Reports the Board wished to stimulate the building of the schools necessary to make reorganisation effective. So the grant on loan charges for loans raised by Local Authorities to build the new schools was increased from 20 per cent. to 50 per cent. for a certain number of years. On the other hand, the Board can, by refusing to recognise certain expenditure for grant, as for example expenditure on maintenance allowances for

children from 12 to 14, practically make such expenditure impossible to a Local Authority. This whole question of grants is another matter which needs urgent attention. Nothing breeds friction between the Central and the Local Authorities so easily as unsatisfactory financial arrangements.

Generally speaking, the Central Authority (the Board) pays about 50 per cent. of the expenditure of the Local Authority as grant. The remainder comes from the local rates with the exception of a small amount received as rents of schools used for meetings, etc. This 50 per cent. from the rates means an educational rate which varies widely in different areas. The rate is high where rateable value is low, and vice versa. The area with low rateable value is usually an area where educational provision will be most needed and where practically all the children take advantage of the State system. Therefore the areas of low rateable value usually require the greatest help from the State. The plight of the distressed areas illustrates the point. If the population of such areas is to be prevented from rapid deterioration, adequate nourishment and first rate health and educational services are essential. Yet it is these very areas which have to levy the highest rates to maintain such services at all.

Towards the cost of Secondary education (including Technical) the Board pays 50 per cent. grant—after deduction of receipts from fees, etc. This grant is paid, like the grant for Elementary education, only upon " approved " expenditure, *i.e.* upon expenditure approved by the Board of Education and passed by the District Auditor. Any other expenditure has to be paid in full by the Local Authority.

The Board has the right to withhold the whole of the grant or any part of it should the Local Authority fail to fulfil its statutory obligations. This power is only exercised in the last resort when the Authority acts in such a way as to fail to provide efficient education for the children for whom it is responsible.

Local Authorities exercise their powers in various ways, and their organisation varies in many respects. Each Local Authority (*i.e.* each Council which has powers concerning education) must appoint an Education Committee to which stand referred all educational matters except the powers—

(*a*) To raise a rate;

(*b*) To apply for a loan.

The distinction between an Education Authority and an Education Committee should be noted. The Education Authority

is the County Council, or the Council of the County or non-County Borough, or the Council of the Urban District where this has powers for education. This *Authority* appoints an Education *Committee* which deals with educational matters, with the exceptions noted above. Only the Authority can raise a rate or apply for a loan. The Committee consists of the appointed members of the Authority together with a varying number of co-opted members, who usually represent such interests as the teaching profession, non-provided schools, and the like.

The Committee has its own administrative staff, the head of which is usually termed the Education Officer or the Director of Education. The Town Clerk is the Secretary to the Education Authority. The staff of the Education Officer varies greatly. In some of the small areas there is no Education Officer—the Town Clerk carries out the duties of Director of Education. In the larger areas the Education Officer may have a Deputy and Assistants, Heads of Departments, and special officers. He has to deal with a variety of problems. Besides the actual provision of the schools and equipment, and the maintenance of an adequate teaching staff, he has to control the School Attendance staff, deal with the problems of deliquency at the local Juvenile Courts, supervise playing fields, regulate child labour and arrange for the by-laws to be observed, act (sometimes) as adviser on employment, and often conduct a transfer examination. The larger the office the more likely it is that these duties will be departmentalised. A change which indicates the changed attitude of parents and children to school work is to be found in the tendency to drop the old name of School Attendance Officer (the old " School Bobby ") and to substitute that of School Enquiry Officer. The great majority of children, at least in those areas where the schools have been made fit for their purpose, attend school willingly. But there are a host of enquiries which have to be made about them—their health, their work, their ambitions, if other than mass treatment is to be accorded to them. A recent addition to the staff of many Education Offices is the Psychologist—a recognition of the importance of a real understanding of children if education is to be an effective service. So, too, the Speech Therapist is another recent addition.

Some Authorities have organisers of special branches of school work—for Handicrafts, Domestic Science, Physical Training, etc. The value of these depends entirely upon their (*i.e.* the organisers) conception of their duties. If they stimulate and encourage and put their specialised knowledge at the service of the teachers they can be of very real help. If they demand uniformity of result

from varied children taught by different staffs under different circumstances they may easily do more harm than good. Again, some organisers become too engrossed in their own subject or group of subjects so that they fail to recognise its proper place in the general scheme of things. The result is that they exaggerate its importance, and their emphasis on it produces an unbalanced curriculum.

Some Authorities have their own inspectorial staff. Such are the larger Authorities where the volume of the work to be carried out warrants a division of labour between "office" staff and "outside" staff. The function of such Inspectors is twofold. They have the duty of seeing that the Committee's regulations are carried out, and of stimulating, advising, and co-operating with the teaching staff in the proper conduct of the actual work of the schools. When they remember *both* duties they exercise a valuable function; when they concentrate on the first alone they make for an emphasis on organisation as such, to the neglect of the purpose for which the organisation exists.

The Education Committee appoints a number of Sub-Committees and Managing Bodies to assist it in the carrying out of its functions. A County Education Committee will set up local committees in towns and villages, usually called School Management Committees, or some similar name, to control the local Elementary Schools. On such a committee the local Parish or Rural District Council would probably be represented. Certain powers (which vary from area to area) are delegated to these committees, while upon other matters they can submit recommendations to the County Committee. Questions of finance—other than the expenditure of certain small amounts not in excess of a certain limit—are reserved for decision by the parent body. With regard to Higher Education there is a variation of practice. Some County Authorities delegate their powers to the Part III Authorities in their area, and exercise their powers direct in other parts of their areas. In such cases the County Authority approves the estimate and the Part III Authority works within this financial framework. In other cases a joint Higher Education Authority is set up upon which both the County and the Local Authority are represented. In such cases the area controlled by the Committee set up may include part of the County area as well as the Part III area. The financial arrangements are similar to those in the case first mentioned. Sometimes the County Authority works directly through its own governing bodies for certain types of institutions—Secondary Schools or Technical Colleges. Sometimes, again, some powers are delegated to Part III Authorities, such as control of Junior Evening Institutes, while

others are exercised either directly or through a specially appointed body of Governors, as in the case of Secondary Schools, etc.

The Committees themselves work through a number of sub-committees which are of two types. There is the sub-committee which is charged with the carrying out of one branch of the Committee's work, such as staffing, accommodation, attendance, etc., and also the sub-committee appointed to deal with one specific job —the establishment of a new service, co-operation with another committee on some point, etc. Sub-committees which are commonly found in most areas are Finance, Staffing, and School Management, but both the number of sub-committees and their nomenclature vary greatly. It is usual to have a Joint Advisory Committee upon which sit representatives of the Education Committee and representatives of the teachers. The function of this Committee is to advise upon matters which affect the actual conduct of the schools.

Elementary Schools may be either provided or non-provided. The former have been built or otherwise acquired out of State funds, and the control of them is entirely vested in the Education Committee. Non-provided Schools are those set up by some religious body or other organisation, which owns the building and exercises certain rights in the conduct of the school. Both types of school have to carry out the same code of regulations. But the Managers of the non-provided school appoint their own staff, subject to the veto of the Education Committee as to numbers. The Committee has the right to refuse to confirm an appointment only on educational grounds, *i.e.* that the teacher is not satisfactory. The managers have the right to refuse to appoint a teacher not a member of the faith which maintains the school. The 1936 Act (now suspended) made it possible under certain circumstances for the Local Authority to make grants to non-provided schools for building purposes. Where this was done the Authority could claim the sole right to the appointment of a certain number of teachers.

Generally speaking all the normal expenses of running a non-provided school are paid by the Education Committee. The Managers, however, are responsible for the maintenance of the building in good order. The cost of " fair wear and tear " can be paid wholly or in some agreed proportion by the Committee.

Similarly, there are two types of Secondary Schools—those " maintained " by the Authority and those " aided " by it. The whole cost of maintaining the former is borne entirely by the grant from the Board, together with the contribution of the Local Authority from the rates; with the exception of the receipts from fees, if any, paid by the parents of the scholars attending. An

" aided " school has some income of its own, which pays for part of the cost of its upkeep. The balance of the cost is shared between the Local Authority and the Board of Education.

This brief sketch should be sufficient to indicate the main features of the administration of education in this country. Administration should always have for its aim the fullest possible realisation of the function of education. It should use the regulations set up and not be dictated to by them. It has to provide the secure and orderly background against which alone the educative process can proceed. But it has to do more than this. It has to ensure that there is scope for that adventure which is at one and the same time life and education. To provide the orderly background and to neglect the field for adventure is to give the children stones instead of bread. To concentrate on the orderly background is the simpler task, and is to some minds attractive because of its concreteness and tidiness. To neglect the orderly background is to deny to the child that security which is the base camp from which all his adventures start. The whole art of administration is so to maintain the balance between security and adventure that the resulting educational provision is at once stimulating and satisfying. Administration must always be a means and not an end in itself.

CHAPTER IV

THE CHILDREN—QUANTITY AND QUALITY

THE educational system of a community exists primarily for the benefit of the children, and it is obvious that the number of such children, and their quality, will be factors which must be taken into account in the organisation of the system. Recently facts concerning the future school population have been widely discussed, and certain investigations have been held to indicate disquieting features as to the future quality even of this diminished school population.

A declining birth rate is not primarily a question for educationists, except in so far as they are concerned also with the whole social structure. But the fact that there is such a decline must be taken into account when future developments in education are under review. Writing in *Time and Tide* on 16th January 1937, Professor Harold Laski said, " I see that Sir William Beveridge has been telling an educational conference that the problem of population will be paramount in the discussion of the social sciences for the next generation. Anyone who examines the remarkable work of people like Kucyniski, Carr-Saunders, and Hogben will not be inclined to disagree. But I hope that his readers will not forget how closely the whole problem of the declining birth rate is bound up with the general character of the social environment."

The facts are by now well known. The following extract from *Political Arithmetic*, edited by Professor L. Hogben, sums up the situation. " The right way to decide whether a community is capable of reproducing itself is to measure fertility by the number of girl children born on the average to one woman in the course of her reproductive life. This can be done when public statistics record the age of the mother at the birth of each child. In England and Wales at the present level of fertility one hundred women on the average have eighty-five daughters in the course of the entire child-bearing period. There would thus be a fifteen per cent. deficit of replacement in each generation even if every daughter herself survived to become a mother. In other words, no further fall in mortality can arrest a continuous decline, and nothing short of immortality can safeguard us against extinction unless fertility is raised by considerably more than fifteen per cent." The conclusions reached by investigators whose researches are reported in the same volume are as follows. Kucyniski states, " No concurable decrease in mortality, or increase in fertility, will have a decisive

effect upon the future net reproduction in the total territory comprised by Western civilisation. The decisive factor will be the trend of matrimonial fertility." Enid Charles makes separate estimates of the future population of England and Wales based upon two assumptions:

(*a*) That fertility and mortality for each year of age remain constant at the 1933 level.

(*b*) That fertility and mortality continue to fall in the manner suggested by the figures available for the last decade.

She points out that " (*b*) represents the more reasonable forecast of the trend of population, if no new social agencies intervene to check declining fertility." According to estimate (*a*) the population of England and Wales will be reduced to one-half of its present size a century from now. According to estimate (*b*) it will be reduced to one-tenth. She adds, " Although no considerable decline in total numbers is imminent in the next two decades, a marked fall in the school age population, and a marked rise in the total numbers of persons of sixty and over, will occur in the same period . . . In England and Wales twenty-five years from now, according to estimate (*a*), the age group 4-14 will constitute 12·6 per cent. of the total population. According to estimate (*b*) it will constitute 9·5 per cent." These figures constitute falls of 21 per cent. and 43 per cent. of the corresponding present age groups.

In Circular 1426 (April 1933) the Board of Education published a report by the Government Actuary, giving the estimated numbers in the various age groups attending Elementary Schools up to and including 1948. The Board pointed out the special circumstances that might be operative in particular areas, but anticipated that " the Government Actuary's observations will afford valuable assistance to Local Authorities in dealing with problems of accommodation, staffing, and organisation." Diagram VI gives the figures of the Government Actuary. It will be noted that these are based upon three different assumptions as to the number of annual births, but that in each case a marked decline in the number of children attending school is to be expected. The assumptions made by the Government Actuary were based upon the fact that the average number of births for the four financial years 1928-32 was 642,000, while the number for the calendar year 1932 was only 614,000. " Having regard to the persistent decline in fertility " he prepared three estimates, the first assuming that the average number of births per year in future years would be 625,000, the second assuming it would be 600,000, and the third 575,000. The first

DIAGRAM VI

Estimated Number of Children Aged Five and Over in Attendance at Public Elementary Schools, 1938-1948

(Based on Government Actuary's Report given in Circular 1426)
(*Figures in Thousands*)

Ages Last Birthday	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
(*a*) On basis of 625,000 annual births from 1st April, 1932											
5-10	3060	3028	2999	2978	2954	2955	2955	2955	2955	2955	2955
11-13	1565	1517	1474	1439	1431	1404	1385	1364	1365	1365	1365
14	148	144	142	138	131	130	128	129	123	123	123
15 and over ..	22	21	21	20	20	19	19	19	18	18	18
Total ..	4795	4710	4636	4575	4536	4508	4487	4467	4461	4461	4461
(*b*) On basis of 600,000 annual births from 1st April, 1932											
5-10	3043	2990	2941	2899	2856	2836	2836	2836	2836	2836	2836
11-13	1565	1517	1474	1439	1431	1404	1365	1327	1310	1310	1310
14	148	144	142	138	131	130	128	129	123	118	118
15 and over ..	22	21	21	20	20	19	19	19	18	18	17
Total	4778	4672	4578	4496	4438	4389	4348	4311	4287	4282	4281
(*c*) On basis of 575,000 annual births from 1st April, 1932											
5-10	3025	2952	2883	2822	2758	2718	2718	2718	2718	2718	2718
11-13	1565	1517	1474	1439	1431	1404	1346	1290	1256	1256	1256
14	148	144	142	138	131	130	128	129	123	113	113
15 and over ..	22	21	21	20	20	19	19	19	18	18	16
Total	4760	4634	4520	4419	4340	4271	4211	4156	4115	4105	4103

assumption means that the birth rate will remain at a figure a little above the present one; the next that there will be a slight decrease, and the third that the present fall in numbers will continue.

Another estimate is that made by Dr. Grace Leybourne and published in *The Sociological Review* for April 1936. The range of the estimate was extended up to 1976 and the total population was divided into four groups, (*a*) 0-15 years, (*b*) 15-45 years, (*c*) 45-65 years, and (*d*) over 65 years. In addition to the fall in the total population, with which social statisticians are concerned, or in the number of future school children, with which educationists are concerned, Dr. Leybourne showed that there would be startling changes in the relative sizes of the various groups. Dr. Leybourne assumed that the population would stabilise in 1944. Commenting on her figure she says, " Looking at the figures arrived at . . . we see that the population of Great Britain will increase slowly for a few more years and will then decline. In 1941 the total population will be about the same as in 1931. The decline will be slow at first; in 1951 the total will be about two millions less than now (1934). Thereafter the decline becomes more rapid so that twenty years later on the same assumptions, it will have fallen by another ten millions . . . There will be at the same time important changes in the age and sex constitution of the population . . . The nature of the changes in age constitution is shown when the percentages which these groups form of the whole population at different dates are calculated." The figures are reproduced below.

YEARS	1931	1951	1976
0-15	24·2	15·5	12·5
15-45	46·9	47·4	36·6
45-65	21·	25·9	33·4
Over 65	7·2	11·2	17·5

Dr. Leybourne adds, " In 1951 the total working population (15-65) will be relatively larger than in 1931 (73·3 per cent. as against 68·6 per cent.), but the increase will be mainly in the older section of the working force. *The dependents will include relatively more elderly people and relatively fewer children* (italics added) . . . In regard to the sex ratio, there will be a tendency, as the years pass, towards an equalisation of the proportion of the sexes in the population as a whole . . . This equalisation will be actually realised in the age group 15-45, which is the group that from one point of

DIAGRAM VII

Dr. Grace Leybourne's Estimate of Population of Great Britain from *The Sociological Review*, April, 1934

(Estimated Future Population of Great Britain in Hundreds)

Ages	1931	1936	1941	1946	1951	1956	1966	1976
Males								
0–15	5,474,3	5,079,8	4,432,9	3,842,8	3,344,0	2,988,6	2,547,7	2,072,5
15–45	10,073,4	10,367,2	10,663,8	10,590,0	10,130,1	9,378,2	7,660,5	6,020,6
45–65	4,543,4	4,615,8	4,617,2	4,694,5	5,016,0	5,436,7	5,789,1	5,407,0
Over 65 ..	1,395,7	1,577,3	1,773,7	1,897,4	1,959,1	1,960,0	2,043,9	2,333,7
Total	21,486,8	21,640,2	21,487,6	21,024,7	21,449,2	19,763,5	18,041,2	15,833,8
Females								
0–15	5,366,3	4,987,3	4,358,4	3,767,9	3,277,2	2,929,3	2,500,5	2,033,6
15–45	10,979,2	10,989,3	10,969,2	10,631,4	10,089,3	9,315,6	7,600,9	5,941,6
45–65	5,186,6	5,464,9	5,671,7	5,855,9	6,045,3	6,251,3	6,163,9	5,507,7
Over 65 ..	1,814,6	2,062,4	2,352,9	2,610,2	2,810,9	2,933,9	3,215,2	3,395,2
Total	23,346,7	23,503,9	23,352,2	22,865,4	22,222,7	21,430,1	19,480,5	16,878,1
Persons								
0–15	10,840,6	10,067,1	8,791,3	7,610,7	6,621,2	5,917,9	5,048,2	4,106,1
15–45	21,052,6	21,356,5	21,633,0	21,221,4	20,219,4	18,693,8	15,261,4	11,962,2
45–65	9,730,0	10,080,7	10,288,9	10,550,4	11,061,3	11,688,0	11,953,0	10,914,7
Over 65 ..	3,210,3	3,639,8	4,126,6	4,507,6	4,770,0	4,893,9	5,259,1	5,728,9
Total	44,833,5	45,144,1	44,839,8	43,890,1	42,671,9	41,193,6	37,521,7	32,711,9

view matters most; even in 1941 the surplus of women in this group will be negligible."

Dr. Leybourne's figures are given in Diagram VII (page 29).

A third estimate which covers wider ground is given by Dr. Enid Charles in *The Twilight of Parenthood.* Of the total population of this country Dr. Charles writes, " At the present time (1931) . . . the population (of England and Wales) has practically ceased to increase. If no further changes in fertility and mortality take place, a stable age composition will eventually be reached. When this point has been reached the population will be reduced in the proportion three to four in each subsequent generation. The determination of the exact length of time implied by the term ' generation ' . . . has never been found to diverge very much from thirty years. Let us suppose that the present fertility and mortality rates of England and Wales remain as they are . . . A population equivalent to that of England and Wales (about 45 millions) would be reduced to less than six millions (*i.e.* about half the size of Greater London) in about two hundred years."

But Dr. Charles' volume is not concerned only with questions relating to the population as a whole. She discusses in detail the problems aroused by a differential birth rate between different social classes and different areas. These variations are striking, as will be seen from Diagrams VIII and IX which are reproduced from her work.

In a more recent work (*Education and the Birth Rate—A Social Dilemma*—Leybourne and White—Jonathan Cape, 1940) it is stated:—

" The number of children to be provided for in elementary schools is also likely to shrink rapidly, as follows:—

PUBLIC ELEMENTARY SCHOOLS: ESTIMATES OF FUTURE POPULATIONS

	Estimate of Total Population aged 3-16	Number of Pupils if Related to T in Same Ratio as Enrolment of 1938	
Year	T	Total	% Decline from 1938 Level
1938	8,586,500	5,091,975	—
1950	6,697,000	3,971,460	22·01
1965	5,091,500	3,019,360	40·70

" In these elementary schools where the children in attendance are scarcely likely in the future to form a larger proportion of the total in relevant age groups than they do now, there may by 1950 be only three-quarters as many to provide for as there are to-day, whereas by 1965 this fraction may have shrunk to rather less than two-thirds. With such a general shrinkage in prospect in State-aided schools of various types, therefore, it might be well imagined that in due course the cost of our educational services will be so reduced that substantial grants to independent schools could be easily financed.

"Such arguments overlook two important considerations. In the first place, with the working out of Hadowism still in progress, the Board of Education and Local Authorities are likely to have more demands made upon their funds than they could adequately meet even if a falling school population brought a certain relief, and even if no progress were visualised nor changes contemplated other than those already in hand. Even before the present war, the idea of funds to spare in the world of State education had, in fact, no chance whatever of being realised. To-day, the war has called for heavy expenditure upon A.R.P. and evacuation, with the result that even routine replacements have been suspended and are piling up calls for the future upon any money available.

" In the second place, it is important to realise that, in any case, a falling population in State schools carries no promise of immediate saving to the public exchequer. How will the falling population show itself? Not in the cutting off of an entire class or two from the schools, as those who prophesy a great saving in expense seem to imagine, but in a gradual whittling down of each class corresponding to the decline in numbers within each age group. Unless, therefore, retrograde steps were to be taken allowing the combination of several classes under one teacher, the staffing of schools will not for some time be relieved. If so, the possibility of effecting any real economy in financing has been disposed of; for do not teachers' salaries compose the bulk of expenditure in both elementary and grant-aided secondary schools? Thus, in the former, the total net expenditure per child during 1937-38 and throughout England and Wales amounted to £15 16s. 4d., and salaries of teachers accounted for as much as £9 14s. 6d. of this. Similarly in the grant-aided secondary schools; out of a total gross expenditure throughout the country of £28 16s. 0d. during 1936-37 the fraction devoted to teachers' salaries reached no less a figure than £20 10s. 0d. Evidently, not until fewer teachers were needed could these aggregates for expenditure be seriously curtailed.

"Next in order of importance in the items of expenditure in both types of schools stand upkeep of buildings and grounds, fuel, light, cleaning, and rates and taxes, which together add up to £4 4s. od. in the secondary schools, and in the elementary, when books, stationery and apparatus are also included, to £2 14s. 8d. These items (apart from the last three) are clearly unaffected by the number of children in each age group so long as the same aggregate of class-rooms and other accommodation has to be kept open. No reduction could be made in the £4 4s. od. for secondary schools, therefore, as fewer children joined each class. As for the elementary schools, the £2 14s. 8d. could be reduced to the extent to which the books and stationery are provided for individual children. Such provision, however, is relatively insignificant in value. In thickly populated areas it might prove feasible to close a certain proportion of establishments; but since schools, especially elementary, must be within a reasonable distance from the scholars' homes, such a policy could probably not be taken far even in such areas, whereas in more sparsely settled districts it would be altogether impracticable."

The authors give two complete tables showing the estimated future population in Educational Institutes of England and Wales. One is based on the assumption that the fertility and mortality figures remain constant at the 1933 level. The other assumes a decline but at a less rapid rate than prior to 1933. These tables are reproduced below and deserve very careful consideration by all those concerned in the administration and organisation of any branch of the educational service.

DIAGRAM VII*a*

CONTINGENCY B. ESTIMATE OF FUTURE POPULATIONS IN EDUCATIONAL INSTITUTIONS IN ENGLAND AND WALES: FERTILITY AND MORTALITY DECLINING LESS RAPIDLY THAN PRIOR TO 1933*

ELEMENTARY SCHOOLS

YEAR	ESTIMATE OF TOTAL POPULATION AGED 3-16 T	PUPILS IF RELATED TO T IN SAME RATIO AS ENROLMENTS OF 1938		RATIO OF PUPILS TO T IF ENROLMENTS TO REMAIN AS IN 1938 %
		TOTAL	% CHANGE FROM 1938 LEVEL	
1936				
1937				
1938	8,586,500	5,091,975	—	59·302
1939	8,324,000	4,936,928	— 3·06	61·172
1940	8,121,000	4,815,915	— 5·42	62·701
1941	7,953,000	4,716,288	— 7·38	64·026
1942	7,797,500	4,624,073	— 9·19	65·302
1943	7,659,500	4,542,237	— 10·80	66·479
1944	7,506,500	4,451,505	— 12·58	67·834
1945	7,366,000	4,368,185	— 14·23	69·128
1950	6,697,000	3,971,455	— 22·01	76·034
1955	6,186,500	3,668,718	— 27·95	82·308
1960	5,658,500	3,355,604	— 34·10	89·988
1965	5,091,500	3,019,361	— 40·70	100·093

* Based upon the arithmetical mean between populations given in Enid Charles' First and Second Estimates. (Memorandum 55, Cambridge Economic Service, 1935.)

Her first estimates assume fertility and mortality constant at the 1933 level; her second their declining at a rate suggested by experience prior to 1933.

DIAGRAM VII*a*—*continued*

Grant-Aided Secondary Schools

Year	Estimate of Total Population aged 7-18 T	Pupils if Related to T in same Ratio as Enrolments of 1938		Ratio of Pupils to T if Enrolments to Remain as in 1938 %
		Total	% Change from 1938 Level	
1936				
1937				
1938	7,781,000	470,000	—	6·040
1939	7,701,000	465,140	— 1·03	6·103
1940	7,478,500	451,700	— 3·90	6·285
1941	7,259,000	438,440	— 6·72	6·475
1942	7,091,000	428,300	— 8·87	6·623
1943	6,926,000	418,330	— 11·00	6·786
1944	6,779,500	409,480	— 12·88	6·932
1945	6,644,500	401,330	— 14·61	7·073
1950	6,026,500	364,000	— 22·55	7·798
1955	5,528,500	333,920	— 28·95	8·501
1960	5,102,500	308,190	— 34·43	9·211
1965	4,631,000	279,710	— 40·49	10·149

DIAGRAM VII*a*—*continued*

Boarding "Public" Schools for Boys

Year	Estimate of Total Population of Boys aged 13-18 T	Pupils if Related to T in same Ratio as Enrolments of 1936		Ratio of Pupils to T if Enrolments to Remain as in 1936 %
		Total	% Change from 1936 Level	
1936	2,005,500	34,013	—	1·696
1937	2,051,500	34,793	+ 2·29	1·658
1938	2,102,500	35,658	+ 4·84	1·618
1939	2,087,000	35,395	+ 4·06	1·629
1940	2,003,500	33,979	— 0·10	1·698
1941	1,924,500	32,640	— 4·04	1·767
1942	1,871,000	31,732	— 6·71	1·818
1943	1,835,500	31,130	— 8·48	1·853
1944	1,809,500	30,689	— 9·77	1·880
1945	1,785,500	30,282	— 10·97	1·905
1950	1,605,500	27,229	— 19·95	2·118
1955	1,453,500	24,651	— 27·52	2·340
1960	1,356,500	23,062	— 33·20	2·507
1965	1,243,500	21,090	— 38·00	2·735

DIAGRAM VIIa—*continued*

Non-Aided but Recognised Schools for Girls

Year	Estimate of Total Population of Girls aged 7-18 T	Pupils if Related to T in same Ratio as Enrolments of 1936		Ratio of Pupils to T if Enrolments to Remain as in 1936 %
		Total	% Change from 1936 Level	
1936	3,822,000	36,655	—	0·959
1937	3,828,000	36,710	+ 0·15	0·958
1938	3,855,500	36,974	+ 0·87	0·951
1939	3,811,500	36,552	− 0·29	0·962
1940	3,701,500	35,497	− 3·16	0·990
1941	3,593,000	34,457	− 6·00	1·020
1942	3,507,000	33,632	− 8·25	1·045
1943	3,425,000	32,846	− 10·39	1·070
1944	3,350,000	32,127	− 12·36	1·094
1945	3,282,500	31,479	− 14·12	1·117
1950	2,972,000	28,501	− 22·25	1·233
1955	2,726,000	26,142	− 28·68	1·345
1960	2,514,500	24,114	− 34·21	1·458
1965	2,282,000	21,884	− 40·30	1·606

DIAGRAM VII*a*—*continued*

Universities

Year	Estimate of Total Population (Eng. & Wales) aged 18-22) T	Pupils if Related to T in same Ratio as Enrolments of 1938		Ratio of Pupils to T if Enrolments to Remain as in 1938 %
		Total	% Change from 1938 Level	
1936				
1937				
1938	3,004,000	34,890	—	1·161
1939	3,114,500	36,159	+ 3·64	1·120
1940	3,246,000	37,686	+ 8·01	1·075
1941	3,370,500	39,132	+ 12·15	1·035
1942	3,490,000	40,519	+ 16·13	1·000
1943	3,475,500	40,350	+ 15·64	1·004
1944	3,328,500	38,644	+ 10·75	1·048
1945	3,188,500	37,018	+ 6·10	1·094
1950	2,897,000	33,634	− 3·60	1·204
1955	2,870,000	29,837	− 14·48	1·358
1960	2,356,500	27,359	− 21·59	1·480
1965	2,198,500	25,525	− 26·85	1·587

DIAGRAM VII*b*

CONTINGENCY A. ESTIMATES OF FUTURE POPULATIONS IN EDUCATIONAL INSTITUTIONS IN ENGLAND AND WALES: FERTILITY AND MORTALITY ASSUMED CONSTANT AT 1933 LEVEL*

ELEMENTARY SCHOOLS

YEAR	ESTIMATE OF TOTAL POPULATION AGED 3-16 T	PUPILS IF RELATED TO T IN SAME RATIO AS ENROLMENTS OF 1938		RATIO OF PUPILS TO T IF ENROLMENTS TO REMAIN AS IN 1938 %
		TOTAL	% CHANGE FROM 1938 LEVEL	
1936				
1937				
1938	8,584,000	5,091,975	—	59·319
1939	8,350,000	4,953,137	− 2·73	60·981
1940	8,175,000	4,849,328	− 4·77	62·287
1941	8,037,000	4,767,468	− 6·37	63·357
1942	7,911,000	4,692,726	− 7·84	64·366
1943	7,802,000	4,628,068	− 9·11	65·265
1944	7,702,000	4,568,749	− 10·28	66·112
1945	7,620,000	4,520,108	− 11·23	66·824
1950	7,265,000	4,309,525	− 15·37	70·089
1955	7,076,000	4,197,412	− 17·57	71·961
1960	6,804,000	4,036,065	− 20·74	74·838
1965	6,442,000	3,821,329	− 24·95	79·043

* Based upon Enid Charles' First Estimate (Memorandum 55, Cambridge Economic Service, 1935).

DIAGRAM VII*b*—*continued*

Grant-Aided Secondary Schools

Year	Estimate of Total Population aged 7-18 T	Pupils if Related to T in same Ratio as Enrolments of 1938		Ratio of Pupils to T if Enrolments to Remain as in 1938 %
		Total	% Change from 1938 Level	
1936				
1937				
1938	7,780,000	470,000	—	6·041
1939	7,697,000	464,976	— 1·10	6·106
1940	7,475,000	451,565	— 3·93	6·287
1941	7,254,000	438,214	— 6·76	6·479
1942	7,084,000	427,944	— 8·95	6·635
1943	6,950,000	419,850	— 10·67	6·763
1944	6,829,000	412,540	— 12·23	6·882
1945	6,725,000	406,257	— 13·56	6·989
1950	6,328,000	382,274	— 18·67	7·427
1955	6,135,000	370,615	— 21·15	7·661
1960	5,960,000	360,044	— 23·40	7·886
1965	5,687,000	343,552	— 26·91	8·264

DIAGRAM VII*b*—*continued*

BOARDING "PUBLIC" SCHOOLS FOR BOYS

YEAR	ESTIMATE OF TOTAL POPULATION OF BOYS AGED 13-18 T	PUPILS IF RELATED TO T IN SAME RATIO AS ENROLMENTS OF 1936		RATIO OF PUPILS TO T IF ENROLMENTS TO REMAIN AS IN 1936 %
		TOTAL	% CHANGE FROM 1936 LEVEL	
1936	2,005,000	34,013	—	1·696
1937	2,051,000	34,784	+ 2·27	1·658
1938	2,102,000	35,650	+ 4·81	1·618
1939	2,086,000	35,379	+ 4·01	1·631
1940	2,003,000	33,971	− 0·12	1·698
1941	1,923,000	32,614	− 4·10	1·769
1942	1,870,000	31,715	− 6·76	1·819
1943	1,834,000	31,105	− 8·55	1·855
1944	1,807,000	30,647	− 9·90	1·882
1945	1,783,000	30,240	− 11·09	1·908
1950	1,630,000	27,645	− 18·73	2·087
1955	1,563,000	26,508	− 22·07	2,176
1960	1,536,000	26,050	− 23·42	2·214
1965	1,481,000	25,118	− 26·16	2·297

DIAGRAM VII*b*—*continued*

Non-Aided but Recognised Schools for Girls

Year	Estimate of Total Population of Girls aged 7-18 T	Pupils if Related to T in same Ratio as Enrolments of 1936		Ratio of Pupils to T if Enrolments to Remain as in 1936 %
		Total	% Change from 1936 Level	
1936	3,822,000	36,655	—	0·959
1937	3,828,000	36,711	+ 0·15	0·958
1938	3,852,000	36,941	+ 0·78	0·952
1939	3,809,000	36,528	− 0·35	0·962
1940	3,700,000	35,483	− 3·20	0·991
1941	3,591,000	34,438	− 6·05	1·021
1942	3,503,000	35,594	− 8·35	1·046
1943	3,438,000	32,970	− 10·05	1·066
1944	3,375,000	32,366	− 11·70	1·086
1945	3,323,000	31,866	− 13·07	1·103
1950	3,123,000	29,950	− 18·29	1·174
1955	3,029,000	29,048	− 20·75	1·210
1960	2,943,000	28,223	− 23·00	1·245
1965	2,808,000	26,929	− 26·53	1·305

DIAGRAM VII*b*—*continued*

UNIVERSITIES

YEAR	ESTIMATE OF TOTAL POPULATION (ENG. & WALES) AGED 18-22	PUPILS IF RELATED TO T IN SAME RATIO AS ENROLMENTS OF 1938		RATIO OF PUPILS TO T IF ENROLMENTS TO REMAIN AS IN 1938 %
		TOTAL	% CHANGE FROM 1938 LEVEL	
1936				
1937				
1938	3,002,000	34,890	—	1·162
1939	3,114,000	36,185	+ 3·71	1·120
1940	3,245,000	37,707	+ 8·07	1·075
1941	3,369,000	39,148	+ 12·20	1·036
1942	3,488,000	40,530	+ 16·16	1·000
1943	3,472,000	40,345	+ 15·63	1·005
1944	3,323,000	38,613	+ 10·67	1·050
1945	3,183,000	36,986	+ 6·01	1·096
1950	2,889,000	33,570	− 3·79	1·208
1955	2,616,000	30,398	− 12·87	1·334
1960	2,540,000	29,515	− 15·41	1·374
1965	2,495,000	28,991	− 16·91	1·398

DIAGRAM VIII

Birth Rates in Certain Social Classes—England and Wales

	1911 Births per 1000 Married Men under 55 Years of Age	1921 Births per 1000 Married Men under 55 Years of Age
1. Upper and middle class ..	119	98
2. Intermediate	132	105
3. Skilled workmen ..	153	134
4. Intermediate	158	153
5. Unskilled workmen	213	178
6. Textile workers (not included above)	125	110
7. Miners (do.) ..	230	202
8. Agricultural labourers (do.) ..	161	155
9. Working classes ..	175	152
All classes ..	162	141

DIAGRAM IX

Births in Different Quarters of Various Large Towns

(From Dr. Enid Charles' *The Twilight of Parenthood*)

Classes of Population	London	Paris	Berlin	Vienna
Very poor	147	108	157	200
Poor ..	140	95	129	164
Comfortable ..	107	72	114	155
Very comfortable	107	65	96	153
Rich ..	87	53	63	107
Very rich	63	34	47	71
Average per 1000 women	109	80	102	153

It is clear from the figures which have been quoted that there are going to be striking changes in the number of children needing education, and also changes in the relative numbers from the different strata of society. Before discussing the significance of

these figures in connection with the question of school organisation it will be as well to ascertain the facts relating to another aspect of the problem, *i.e.* the quality of the children. The number is going to fall—about that fact there is no possible doubt. What of the quality—can any information be gained as to that?

In 1929 the Mental Deficiency Council published a Report based upon the results of an enquiry made in six selected districts—three urban and three rural. The Report adopted the usual classification of defective children into idiots, imbeciles, and feeble-minded. Although this classification was developed independently of the more modern and scientific use of Intelligence Tests, the latter are now universally used as a means of diagnosis.

The Binet-Simon test, revised by Burt, is a good example of the individual test, *i.e.* one which is applied separately to each child. It was developed by Binet and Simon in Paris, for the purpose of devising a means for the diagnosis of defective children. It consists of a number of simple tests, arranged in groups for the various years. The normal child of a given age should be able to perform satisfactorily the tests included in the group for his age. The individual tests vary in kind so as to call into operation as wide a range of activity as possible. There is a standardised procedure for giving the test, and this must be adhered to if the results are to be reliable. If a child passes the group of tests for a child of seven years but fails to carry out satisfactorily those for a child of eight years, he is said to have a mental age of seven. If he passes those applicable to the nine-year old group, a mental age of nine, and so on. Hence arises the conception of *mental age* as something distinct from chronological age. A child's mental age may be 8 years 6 months (the tests provide for months as well as years), while his chronological age is 10 years 6 months. He is then said to be two years retarded. If his mental age were 12 years 6 months he would be two years advanced.

From these conceptions the idea of an *Intelligence Quotient* (I.Q.) has developed. To obtain it the fraction $\frac{\text{Mental Age}}{\text{Chronological Age}}$ is multiplied by 100. In the first case quoted above the I.Q. would be $\frac{8\frac{1}{2}}{10\frac{1}{2}} \times 100$, or approximately 81. In the second case it would be $\frac{12\frac{1}{2}}{10\frac{1}{2}} \times 100$, *i.e.* say 119. If the mental age equals the chronological age the I.Q. is 100. If the mental age is the greater, the I.Q. is above 100; if the chronological age is the greater it is below 100.

Very few idiots show an I.Q. of more than 20, very few imbeciles one higher than 40, and few feeble minded children one above 70. Therefore as a rough classification we have—

Classification	I.Q.
Idiots	Below 20
Imbeciles ..	20-50
Feeble-minded	50-70

In addition to the individual tests described above, group tests have been devised which can be applied to groups of children at a time. These are of value in scholastic work for obtaining a general picture of the mentality of a class or a school. The results obtained from them should be used with reserve and with extreme caution; for diagnostic work with individual children only tests which have been carefully standardised should be used.

The Report made the suggestion that all children with an I.Q. of 50 and below should be regarded as notifiable, and that the same should apply to those older than 11 and with an I.Q. of 55. This ratio, *i.e.* 50 or 55 according to age, should be regarded as the lower border-line for *retarded* children, 80 being the upper limit. It was further suggested that in the larger towns the upper limit should be 85.

The results of this investigation are given in Diagrams X, XI, and XII.

DIAGRAM X

Percentages Based on Findings in Regard to Mentally Defective and Retarded Children Between the Ages of Seven and Fourteen

(From Report of Mental Deficiency Committee)

Mental Ratio	Urban Areas		Rural Areas	
	Percentage of Age Group or School Population	Increment	Percentage	Increment
Below 50	0·38	—	0·61	—
Below 55	0·58	0·20	0·97	0·36
Below 60	0·93	0·35	1·73	0·76
Below 65	1·44	0·51	3·00	1·27
Below 70	2·22	0·78	5·11	2·11
Below 75	3·75	1·53	8·96	3·85
Below 80	6·86	3·11	17·84	8·88

From the figures obtained from the six areas investigated conclusions were drawn as to the mentality of the population as a whole. Diagram X gives the percentage of the school population between 7 and 14 with an I.Q. of certain values. Diagram XI shows the incidence of defect in the areas investigated—first by separate sexes and then in the total, and Diagram XII gives estimated numbers for the whole country.

In the Report it is stated that the figures obtained "enable us to state with some measure of confidence that the incidence of mental deficiency in England and Wales is about eight per thousand." This incidence is higher than that given by any previous investigation, and the question therefore arises as to whether the figures indicate that there has been an increase in the incidence of mental defect in the country in recent years. The number given is double that based on the data of the investigators for the Royal Commission in 1906. One reason may be improved technique of diagnosis—it is possible nowadays to conduct a more thorough enquiry than it was thirty years ago. The Report admits that this may account in part for the increase—perhaps even for the greater part of it. But it is maintained that there still remains "some evidence that the numbers of mentally defective persons in this country, relative to the increase in population, are now higher than they were twenty years ago."

One important point demands attention. In the course of the Report attention is directed to the incidence of physical defect amongst these mentally defective children. For example, 1·7 per cent. of mentally defective children are partially blind, as against ·09 per cent. of normal children; 3·5 per cent. are partially deaf (·53 per cent. for normal children); 11·3 per cent. have speech defects, and 12·7 per cent. have defective vision. It is also stated "signs and symptoms of neuroses were frequently encountered among the mentally defective group of children." These facts are suggestive and indicate a real need for a closer and more thorough investigation. There appears to be at least the possibility of some of the apparent mental defect being due to causes such as general mal-nourishment or emotional disturbance which can be remedied by treatment, or in cases of children with certain physical defects, by a special teaching technique.

Some authorities deny that there is any causal relationship between physical well-being and mental ability. In *The Fight for our National Intelligence* Dr. R. B. Cattell says that feeding and physical training must receive attention for the purpose of increasing energy and well being, but he adds that it is useless to give these

DIAGRAM XI. Incidence of Defect in Each Area per 1000 Children between Seven and Fourteen in the School Population

(From Report of Mental Deficiency Committee)

(A) Incidence per 1000 Boys

Area.	No. of Boys between 7 and 14 on School Registers.	Feeble-Minded.	Imbeciles.	Idiots.	Total.
Urban area A	6468	15·00	4·48	0·93	20·41
,, ,, B	5225	18·37	3·25	1·15	22·78
,, ,, C	7201	20·97	2·78	0·69	24·44
Rural area D	4758	36·99	5·46	1·68	44·14
,, ,, E	4821	31·53	5·81	1·87	39·20
,, ,, F	5196	36·18	5·39	1·15	42·73

(B) Incidence per 1000 Girls

Area.	No. of Girls between 7 and 14 on School Registers.	Feeble-Minded.	Imbeciles.	Idiots.	Total.
Urban area A	6669	12·58	2·25	0·15	14·99
,, ,, B	5462	15·56	1·83	1·10	18·49
,, ,, C	6718	19·95	3·42	0·60	23·97
Rural area D	4553	31·41	3·73	1·10	36·24
,, ,, E	4403	34·98	4·77	1·14	40·88
,, ,, F	4906	30·17	3·67	1·02	34·86

(C) Incidence per 1000 Boys and Girls

Area.	No. of Children between 7 and 14 on School Registers.	Feeble-Minded.	Imbeciles.	Idiots.	Total.
Urban area A	13,137	13·78	3·35	0·53	17·66
,, ,, B	10,687	16·94	2·53	1·12	20·59
,, ,, C	13,919	20·48	3·09	0·65	24·21
Rural area D	9,311	34·26	4·62	1·40	40·27
,, ,, E	9,224	33·17	5·31	1·52	39·99
,, ,, F	10,102	33·26	4·55	1·09	38·90

DIAGRAM XII. Estimated Number of Mentally Defective Persons in England and Wales

(From Report of Mental Deficiency Committee)

(A) Children

Area	Sex	Population under 16	Feeble-Minded	Imbeciles	Idiots	All Grades
Urban areas	M.	4,279,600	42,111	9,929	2,482	54,479
	F.	4,231,000	34,863	7,404	1,396	43,706
	M. and F.	8,510,600	76,974	17,333	3,878	98,185
Rural areas	M.	1,114,800	18,127	3,500	758	22,374
	F.	1,074,900	15,855	2,698	645	19,184
	M. and F.	2,189,700	33,982	6,198	1,403	41,558
All areas	M.	5,394,400	60,238	13,429	3,240	76,853
	F.	5,305,900	50,718	10,102	2,041	62,890
	M. and F.	10,700,300	110,956	23,531	5,281	139,743

(B) Adults

Area	Sex	Population over 16	Feeble-Minded	Imbeciles	Idiots	All Grades
Urban areas	M.	10,530,500	38,226	10,425	3,264	52,021
	F.	12,192,000	41,697	9,266	1,585	54,426
	M. and F.	22,722,500	79,923	19,691	4,849	104,447
Rural areas	M.	2,879,100	16,440	4,952	893	22,284
	F.	2,988,100	17,331	3,765	986	22,082
	M. and F.	5,867,200	33,771	8,717	1,879	44,366
All areas	M.	13,409,600	54,666	15,377	4,157	74,305
	F.	15,180,100	52,028	13,031	2,571	74,508
	M. and F.	28,589,700	113,694	28,408	6,728	148,813

DIAGRAM XII—*continued.*

(C) Children and Adults

Area	Sex	Population (Total)	Feeble-Minded	Imbeciles	Idiots	All Grades
Urban areas	M.	14,810,100	80,337	20,354	5,746	106,500
	F.	16,423,000	76,560	16,670	2,981	96,132
	M. and F.	31,233,100	156,897	37,024	8,727	202,632
Rural areas	M.	3,993,900	34,567	8,452	1,651	44,658
	F.	4,063,000	33,186	6,463	1,631	41,266
	M. and F.	8,056,900	67,753	14,915	3,282	85,924
All areas	M.	18,804,000	114,904	28,806	7,397	151,158
	F.	20,486,000	109,746	23,133	4,612	137,398
Grand Totals	M. and F.	39,290,000	224,650	51,939	12,009	288,556

(Author's note:—" The slight discrepancy in the total for all grades arises from the use of incidence tables calculated to two decimal places.")

factors attention "under the delusion that the mentality of the race is increased thereby." He maintains that there is little, if any, correlation between adequate feeding and intelligence, and that gross malnutrition may retard physical growth but allow the nervous system to continue to grow.

Cattell paints a gloomy picture of the future intellectual capacity of the country. He conducted investigations in two areas—one an industrial town (Leicester) and the other a rural area (in Devonshire). Using intelligence tests to carry out these investigations, he comes to the conclusion that the average mental capacity of the population must be declining through the substitution of dull for able children, at the rate of about 1 point on the I.Q. scale in every ten years. If this investigation is correct, and assuming that the same process continues, then in three hundred years half the population of the country will consist of mental defectives in greater or lesser degree. This conclusion rests upon the two premises that the average size of a family is inversely related to its intelligence level (*i.e.* that the least intelligent parents have in general the greatest number of children), and that intelligence is hereditary. He argues that the "sub-men" have the lower intelligence but are breeding faster than the "super-men" with the result that the mentality of the race progressively declines.

When all these factors are considered it can be seen that the present position is alarming and demands consideration and action. It is clear that the population is declining in numbers; there is some evidence to suggest that it may be declining in quality as well. At the present stage it would not be safe to regard the latter statement as proved. Before such a statement can be accepted the technique of measuring intelligence will have to be carefully examined and the field of experiment enlarged.

How do these facts and hypotheses affect the question of school organisation? It is clear that they must be taken account of both in the organisation of the system as a whole and also in the schools within the system. To take the second point first—that of the alleged declining mental quality of the school population—the system of education should be such that every opportunity is given to children to develop the ability they have. How far is this done to-day?

In *The Sociological Review* for April 1935 Gray and Moshinsky published a lengthy report upon "Ability and Opportunity in English Education." This Report is based upon an enquiry into some 10,000 children from five different types of schools. The children included those who received the opportunity to pursue a

DIAGRAM XIII

Estimated Totals with High Ability in Various School Categories, Aged 9·0–12·6, with Percentages of each in Terms of Total School Population with High Ability

(Reprinted from Gray and Moshinsky's "Ability and Opportunity in English Education"—*Sociological Review*, April, 1935)

School	I.Q.				I.B.			
	130 and Over		140 and Over		120 and Over		130 and Over	
	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
Elementary, 9·0–11·0	279,000	39·2	174,000	37·9	277,000	42·0	171,000	40·5
Elementary, 11·1–12·6	190,000	26·7	100,000	21·8	154,000	23·4	82,000	19·4
Central	92,000	12·9	66,000	14·4	84,000	12·7	56,000	13·3
Secondary Free Pupils	39,000	5·5	36,000	7·8	38,000	5·8	35,000	8·3
Secondary Fee-payers	34,000	4·8	24,000	5·2	32,000	4·8	22,000	5·2
Private and Preparatory	77,000	10·8	59,000	12·9	74,000	11·2	56,000	13·3
Total with High Ability	711,000	100·0	459,000	100·0	659,000	100·0	422,000	100·0

DIAGRAM XIV. MALADJUSTMENT OF ABILITY AND OPPORTUNITY IN HIGHER EDUCATION (AGE GROUP 9·0–12·6)

(Reprinted from Gray and Moshinsky's "Ability and Opportunity in English Education"—*Sociological Review*, April, 1935)

	I.Q.				I.B.			
	130 AND OVER		140 AND OVER		120 AND OVER		130 AND OVER	
	No.	*PER CENT.	No.	*PER CENT.	No.	*PER CENT.	No.	*PER CENT.
1. *Free Pupils* (2,286,000)								
(*a*) No. with high ability ..	569,000	24·9	353,000	15·4	523,000	22·9	323,000	14·1
(*b*) No. of (*a*) with opportunity	151,000	6·6	137,000	6·0	147,000	6·4	133,000	5·8
(*c*) No. of (*a*) without opportunity	418,000	18·3	216,000	9·4	376,000	16·5	190,000	8·3
(*d*) No. with opportunity but without high ability	7,000	0·3	21,000	0·9	11,000	0·5	25,000	1·1
2. *Fee-Paying Pupils* (275,000)								
(*a*) No. with high ability ..	142,000	51·5	106,000	38·5	136,000	49·5	99,000	36·0
(*b*) No. of (*a*) with opportunity	142,000	51·5	106,000	38·5	136,000	49·5	99,000	36·0
(*c*) No. of (*a*) without opportunity	—	—	—	—	—	—	—	—
(*d*) No. with opportunity but without high ability	133,000	48·5	169,000	61·5	139,000	50·5	176,000	64·0
3. *All Pupils* (2,561,000)								
(*a*) No. with high ability ..	711,000	27·8	459,000	17·9	659,000	25·7	422,000	16·5
(*b*) No. of (*a*) with opportunity	293,000	11·5	243,000	9·5	283,000	11·0	232,000	9·1
(*c*) No. of (*a*) without opportunity	418,000	16·3	216,000	8·4	376,000	14·7	190,000	7·4
(*d*) No. with opportunity but without high ability	140,000	5·5	190,000	7·4	150,000	5·9	201,000	7·8
TOTAL MALADJUSTMENT (3 (*c*) + 3 (*d*))	558,000	21·8	406,000	15·9	526,000	20·5	391,000	15·2

* The percentages refer to the relation between the figures in the rows and the figures in brackets in column 1.

higher education, and dealt with the two contrasting groups of free and fee-paying pupils. The main results of this investigation are given in Diagrams XIII and XIV on pages 51 and 52.

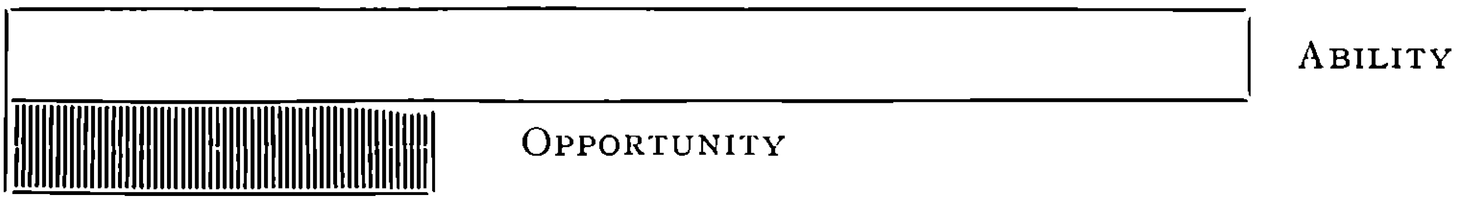
In these tables I.Q. denotes Intelligence Quotient and I.B. stands for "Index of Brightness," a measure devised for the purpose of this research and indicating the relative degree of promise of the various groups. One hundred is the measure of average promise; any figure above 100 indicates possibilities above the average and below 100 the opposite. The figures obtained can be represented diagrammatically in a way that brings out the main conclusions in a very clear manner. In the diagram given below the ability and the opportunity of the free pupils and the fee-paying pupils are represented by rectangles—numbers being proportional to the length of the rectangle.

DIAGRAM XV

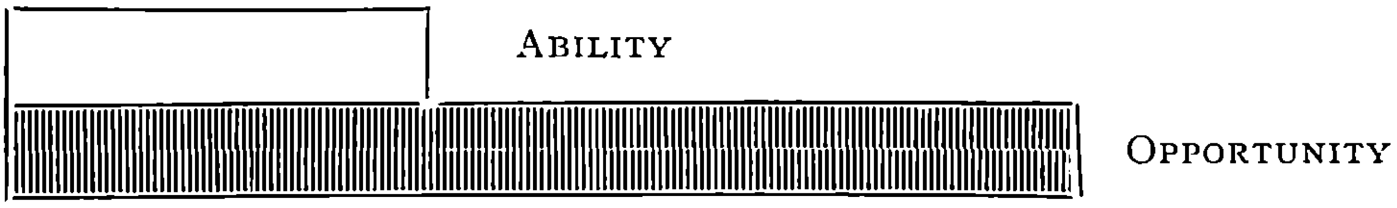
Children of I.Q. 130

(Numbers proportional to lengths of rectangles)

(a) Free Pupils



(b) Fee-Paying Pupils



The Report points out "that on the highest criterion of ability 45 per cent., and on the lowest one, 49 per cent. of the total number of gifted children in the school population do not enjoy the opportunity of a higher education," and that "taking children of equally high ability, seven fee-paying pupils will receive a higher education for every one free pupil." Again, "In the whole school population, more than 50 per cent. of the able pupils are without the opportunity of a higher education," while "if we consider children who fall *below* the selected level of ability, for every one free pupil who is afforded an opportunity of a higher education, there are 162 fee-paying pupils who enjoy the same advantage."

This indicates that the organisation of the educational system is not fulfilling its proper function. It was the purpose of the

Hadow and Spens Reports to remedy this state of affairs, and to provide a system of schools so organised that *all* ability should be given an equal opportunity. Some steps have been taken in this direction, but until the reorganisation of the educational system of the country is completed and all post-primary education treated as secondary education in fact as well as in theory, so long must there remain a wastage of ability and effort.

Within any school the problem of the mental calibre of the children is an acute one, particularly in the Modern Senior School. A visitor from China was overheard to refer to these schools as "two-skimmed schools." In the Junior School the spread of ability is always wider. At the end of the Junior School course some children go to the Secondary School, some to the Selective Central School (if there is one), some to the Junior Technical School (if there is one). The remainder form the Modern School population. Judged by a purely academic standard these children are of poor quality. It is worse than useless to attempt to drag them through a curriculum which is academic in nature. It is equally futile to think that they will be educated by an attenuated form of such a curriculum, one from which certain parts have been omitted. The need is for a curriculum within the capacity of the children. If there are three streams in the school, the three curricula should not be produced by drawing up one suitable for the A stream, omitting certain portions for the B stream, and still other portions for the C stream. A different approach, a different content, and a different teaching technique may be needed in each case. There is still room for much investigation into this matter. Often the effort is made, with an energy which is commendable but wasted, to teach children things which it is beyond their mental capacity to learn. This results inevitably in a sense of inferiority in the children and a feeling of frustration in the teacher. The object of school organisation must be to provide a curriculum for all children so that their mental ability is fully developed but so that they are not overstrained.

A falling school population is naturally viewed with alarm by those concerned in educational activities. The administrator has his eye on the falling average attendance of the area—and the resulting loss in grant. The teaching staff see in it something which may threaten their security of tenure and cause difficulties in organisation through reductions in teaching staffs. Again, it is necessary to consider the whole purpose of education, and to remember that educational ideals are dynamic and not static. The figures relating to the falling birth rate have been used by some

people, particularly financial experts, as the basis for an argument that the building of new schools should cease forthwith. They take the probable school population in twenty years' time, show that the number of children of school age then could be accommodated in the schools of to-day, and maintain that any temporary overcrowding will readjust itself and that to build now will mean empty schools in the future. All this assumes that the amount of space deemed suitable for one child will remain unchanged; that the size of classes will remain unchanged; that teaching technique will remain unchanged, and that, in general, the standards of to-day are static and unchanging, and will still be applicable in twenty years' time. It is almost possible to hear these experts say, " What was good enough for me will be good enough for my children." They may be recognised as financial experts, but they are not a safe guide in the field of educational effort.

It is obviously a sound thing for the administrator to keep an eye on population changes in his area; and for the teacher to consider how such changes will affect his or her school. But the real lesson to learn from the facts is the necessity of making buildings and organisation as flexible as possible. Smaller classes, more individual work, an extension of nursery classes, a raising of the school leaving age, extra rooms for group activities, and a host of other things which are now needed but not provided, would be made possible by a fall in the school population. To use such a fall only to economise and so to make existing standards permanent would indeed be folly. The politician and sociologist are concerned with the major problem of population, and it is their business to discuss whether a rising, falling, or stable population is most desirable, and the appropriate means for ensuring the desired end. It is the organisers' problem to see that in every case the facilities available are used to the greatest advantage in the service of the education of the nation's children.

CHAPTER V

THE SCHOOL BUILDINGS

LEGALLY, the school buildings are the school. Actually, if education is the contact of mind with mind, the school is composed of those who live and work and play there—the teachers and the pupils. There is always a temptation to use the term in its legal sense only, and to think that a fine building makes a fine school, and a poor building a poor one.

It is worth while considering why this should be so. During the last century the discoveries of science and the improvements in technique have made possible a great extension in the ability of men to produce goods of all kinds—from factory equipment to schools, clothes to food products, armaments to churches. This greatly increased power to produce has resulted in a wave of optimism passing through the world. It has engendered the hope that the age of peace and plenty was approaching, and that the good society was near at hand.

But the expected results have not materialised. There have been difficulties in the distribution of the goods which men can make so readily. The inventive genius of men has been put to destructive ends instead of to constructive ones. The root of the trouble is that men have been unable to regulate their own urges to action, and that great powers have tended to become attached to unworthy motives and undesirable ends. A recognition of this fact has led to the development of a sense of frustration, and so the world is bewildered—hopeful yet frustrated.

In such a state there is always a tendency to seek reassurance by doing excessively the thing which one can do best, and so trying to delude oneself that the other things do not exist. So to-day man builds, constructs, makes, and travels a little faster, and in his success in these fields seeks to find consolation for the knowledge that he cannot yet so regulate his conduct in such a way as will secure for him the full benefits that should follow from his powers.

This has a very real application in a consideration of the place of school buildings in the educative process. Good buildings are essential; but there is a tendency to think that the ability to construct a good school building is the ability to produce a good school. To make a good school building is to use the scientific inventions and improved techniques to which reference has already

been made. This can be done, and done so excellently, that it raises great hopes. To make a good school means that there has to be developed within the school buildings satisfactory human relationships between all those who use it. And the failure to do this often results in a sense of frustration.

The school buildings should be the best possible. A bad building can be the cause of irritation and friction in a school. The ability to construct has to be used so that it will help and not hinder the regulation of human behaviour within it. So buildings should be planned to *function*—their purpose should be the main consideration in their planning. This implies a knowledge of the needs of children and adolescents at different ages. The Infants' School will have to have qualities peculiar to itself. So, too, will the Junior School, the Technical College, the Senior School, or the Secondary School. The primary questions in the construction of a school are—What functions is it to serve?—How can the facilities provided best ensure effective functioning?

In any country where schools have been in existence for a considerable time, the legacy of school buildings of an older type is sure to be heavy. They are often too good to be scrapped—and financial considerations forbid the complete rebuilding of schools every ten or fifteen years. This would no doubt be ideal, but would only be practicable in a state of affairs in which nations fought with schools rather than with aeroplanes. Yet educational ideals change, and what was a good and effective building fifteen years ago may be a drag on progress to-day. And usually these older schools are so well and so solidly built that the reconstruction of them is difficult if not impossible. To take one point as an illustration, the conception of large classes taught by mass methods has been replaced by one of small classes, with individual teaching and room for movement. The old conception had led to the construction of rooms accommodating one hundred children each or even more, the use of galleries to ensure more efficient supervision by the teacher, and the provision of long desks which would seat the maximum number of children in the minimum of space. The new conception means rooms to accommodate forty to forty-five as a maximum, without galleries and equipped with single or dual desks in order to permit of easy movement about the room by both the teacher and the children. The problem of dealing with buildings erected in accordance with the one conception and not appropriate to give expression to the other is a problem for all education authorities. Happy indeed is the authority which has no such legacy from the past.

The Board of Education maintains a list of schools which are so bad structurally or functionally as to be beyond reconstruction. This " black list " of schools is continually reviewed, and efforts made to close them and replace them by buildings more in keeping with modern conceptions. There is a second list of " defective " buildings which it is considered, however, can be made suitable for modern educational work by reconstructions or extensions, or both. The existence of such lists indicates the extensive building programme still necessary.

This problem of the old building has emphasised the need for constructing all interior walls of a school in such a manner that they can be removed without damaging the main structure of the building. When this is done, it is always possible to alter the size, shape, and number of rooms at a minimum expenditure and without detriment to the building.

Some other general properties of all school buildings should be noted before discussing the details of buildings suitable for children of any given age group.

The siting of schools is important. They should be as centrally situated as possible with regard to the child population they are to serve, although this is not so essential in these days of rapid transport as it was previously. In fact, in congested areas there is much to be said for the school being outside the area, and the authority providing transport to it. The child requires above all else space in which to be active. The conception of education as a process in which the child was immobile and purely receptive while the teacher was active and energetic has been replaced by one of the child learning through his own activity while the teacher is observantly but unobtrusively controlling the direction of the activity. And for this new conception space—both within the school and around it—is essential. If space cannot be provided in a congested area the remedy is to remove the school to a site outside the area and provide transport for the children. Generally speaking, the older the children the further they can travel.

The site, then, should be ample. It should allow for adequate buildings and adequate playing areas—not simply the small paved or asphalted area with which so many schools have to be satisfied. It should be a site conveniently situated with regard both to access on foot and by transport. It should be well drained, and the more level it is the easier will be the erection of buildings upon it, and the laying out of the playing fields. The Board of Education's views as to what constitutes a suitable site for a school are contained in a pamphlet *Elementary School Buildings* published in 1936 and obtainable from H.M. Stationery Office. Therein it is stated:

" The two primary considerations in selecting sites for new schools should be adequacy and suitability. In making a final choice it is important that architectural advice should be sought and that consultation with the Town Planning Authority should not be omitted. Particular attention should be given to the relationship of the site to existing or future traffic routes, with a view to minimising the danger to children on their way to school.

" In determining the amount of land needed in any particular case, regard should be had both to the size and to the organisation of the schools that are to be put on the site. In selecting it, as in planning the building, the total accommodation that may be expected to be needed ultimately should be the first consideration, rather than the necessity of the moment. Then it should be remembered that a site that is to take seniors at some future time needs a good deal more land for consequential developments, *e.g.* larger gardens and playing fields, than one that is to take juniors only. As it is nearly always very difficult to add to a site that is too small, and as new buildings are generally in developing districts, an unduly restricted site is to be avoided, so far as considerations of economy permit. Where the shape of the site is irregular there will be waste and a larger area is required than in the case of a well shaped piece.

" That it is necessary to contemplate for the future the purchase of sites considerably larger than those of the past will be apparent when the plan and lay-out of the modern school are thoroughly appreciated, since they are conceived on altogether more open lines than was formerly the case. The ideal should be envisaged as a single-storey building, opened out to the air and sunshine in every part. Playgrounds should be placed well away from the school buildings, space being reserved for school gardens and for open-air work; some also for flower borders and shrubs. School buildings, moreover, should not be close up to the noise and dust of roads, nor should playgrounds be too closely overlooked from roads, or so near to them that children would debouch directly upon the traffic. The school, in fact, should be afforded a measure of quiet and privacy from the outside world, and, inside, should have ample space for its activities.

" Large sites are frequently found to be economical where land is not expensive. To level uneven ground usually costs more than the ground itself and to pave irregularly shaped pieces of playground is a waste of money. Small sites may force buildings and playgrounds close up to roads or adjoining property, in which case high solid fences become necessary, whereas on large sites fences of the lightest and most inexpensive patterns can be employed.

" With all these considerations in view the Board have had in mind a desirable standard for sizes of sites for new Elementary Schools. They are of the opinion that the standard at which to aim should be not less than two acres per department. For a large department, or even for a small one which is likely to grow, there is little doubt that two acres is not unnecessarily large. In the case of the Senior School, two acres allows nothing for playing fields, but for juniors there will be the desirable margin required to supplement the hard-surfaced playground. Even in the case of small schools in rural districts a smaller site would render it quite impracticable to offer adequate facilities

for the teaching of horticulture and the valuable practical work in Science and Handicraft that can be connected with a school garden. Where, however, circumstances render it unavoidable that two or more departments should be built upon the same site, the standard of two acres per department may be somewhat lowered. Cost of land must, of course, be always a guiding factor. In built-up and congested areas it may not always be possible to satisfy the standard suggested, but it is strongly recommended that Authorities and Managers should make every effort to approximate to it.

" Sites should be chosen so that the school can be placed where no shadow can fall upon the buildings and where every available ray of sunshine can play upon them. On the other hand, unduly exposed sites should be avoided and regard should be had to the direction of the prevailing winds. Sites should be reasonably level and, if sloping, the slope should be towards the south. There should be no undesirable surroundings which might be noisy or detrimental to health, and care should be taken to avoid land which is lowlying, made-up, damp, or subject to floods or subsidence.

" The site should be conveniently accessible by road and there should be access, if possible, from more than one side, entrances from main traffic routes being avoided. Where entrances from busy thoroughfares are unavoidable they should be recessed and fitted with crush barriers so as to minimise the danger when children are leaving school. Every effort should be made to avoid an excess of road frontage, which is disadvantageous from the point of view both of expensive road charges and of the likelihood of noise and dust. Care should be taken to see that all public services, sewers, water, gas and electricity are readily available. Sites which are subject to embarrassing restrictive covenants should not be acquired. The most should be made of any natural features which the site may possess."

This is a clear statement of the requirements which should be satisfied before a site can be regarded as a good one upon which to erect a school. It should be noted that the minimum area given is that for the building only. In the same pamphlet the Board refers to playing fields in the following terms:

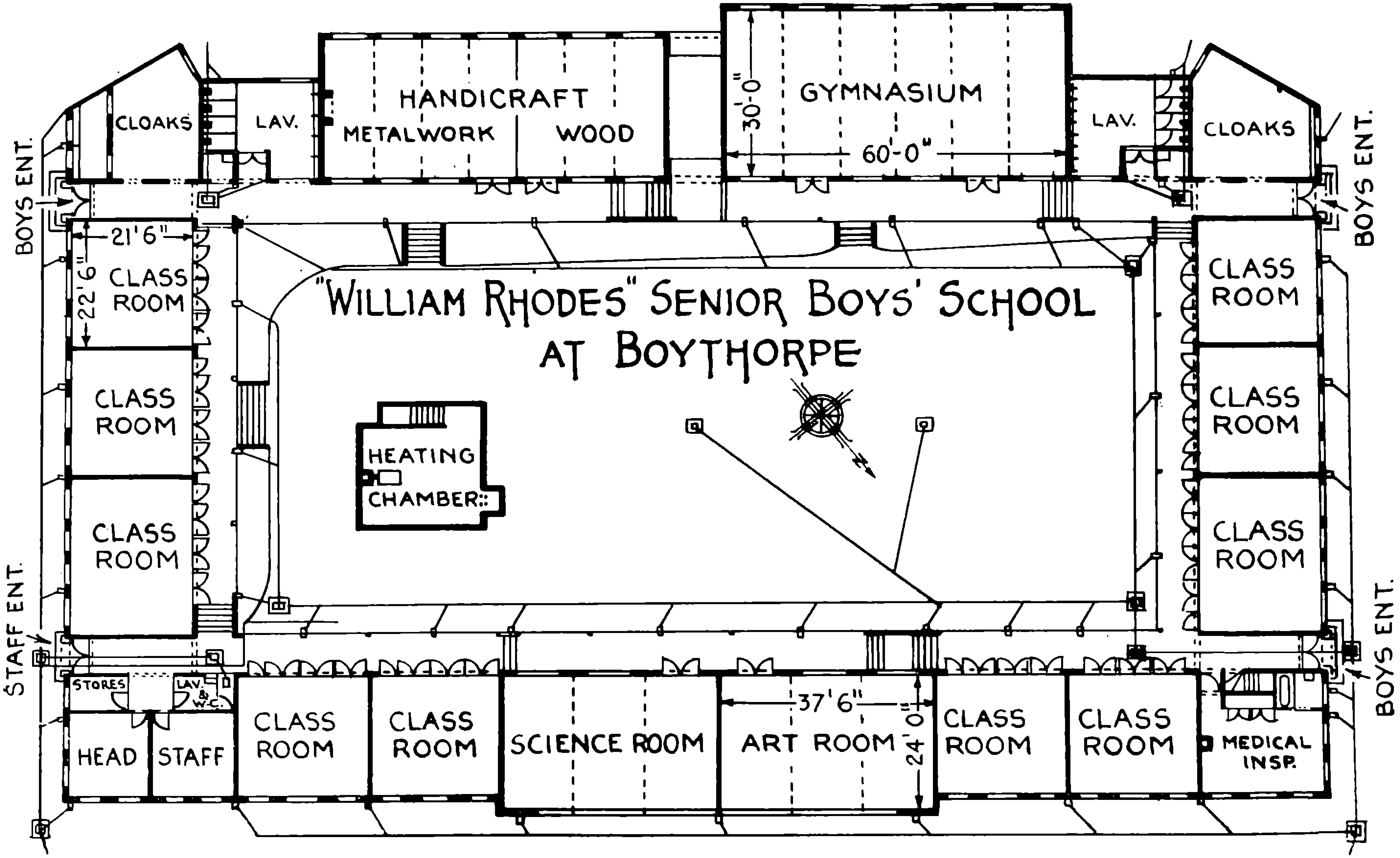
" Every new Senior School may be expected to have either its own playing field attached to the school or easy access to a central playing field. It is most desirable that no Senior School, however moderate in size, should have a playing field of less than two or three acres. For a school of 300 or more, not less than four to five acres would be found desirable, or six to seven acres where the numbers approach 500. It is important that the playing fields, whatever their area, should be kept in proper condition. It is very desirable that the playing field should be on the same site as the school, in order that there may be easy and convenient access to it, not only for games during school time, but also for the use of the children during the midday interval. In congested areas where it is not possible to provide a playing field on the actual site of the school, every effort should be made to place the school within reach of any public park or central playground in which there are opportunities for open-air education and organised games."

This refers specifically to Senior Schools, but the need for grass playing fields for all schools is becoming increasingly recognised. Junior Schools need space for organised games, and Infants find joy in games played in suitably prepared grounds. See-saws, swings, roundabouts, chutes, etc., are amongst the equipment which should be provided on playing fields for Infants and Juniors.

The site having been secured, the next consideration is the orientation of the building on the site. The quadrangular type of school has become popular of late, so has the school made up of two arms flung out from a central block. Sketch plans of such schools are shown in Diagrams XVI and XVII. The factors which have to be considered when planning schools on any actual site are the compass points and the need for sunshine in rooms; the levels (if the site is not a flat one) and how they can be used; the position of the playing fields with respect to the school, the suitability of the proposed buildings for the site (a school has to have its utility purpose considered first, but this is no reason why due regard should not also be paid to aesthetic considerations), the position of the building with respect to approaches to it, and so on. The accommodation to be provided will, of course, be a determining factor as to its size. The provision for 250 infants will be different from that for 250 seniors. Bound up with this question is that of the most suitable accommodation for any school to have. Often this is decided upon without regard to organisation, and subsequent difficulties arise which could have been avoided by a little foresight. An Infants' School usually has three classes, and assuming that each of these has 40 children, then 120 is a convenient accommodation figure for a school having one class for each age group. The next convenient number is 240, *i.e.* a school which has two classes for each age group. Then comes the school of 360. If the smallest Infant School has one Nursery Class accommodating 25 pupils, then the numbers to be provided for is 145; the next size school may have two such Nursery Classes, and then its accommodation would have to be $240 + 50 = 290$. If the largest school has three Nursery Classes, then its accommodation becomes $360 + 75 = 435$.

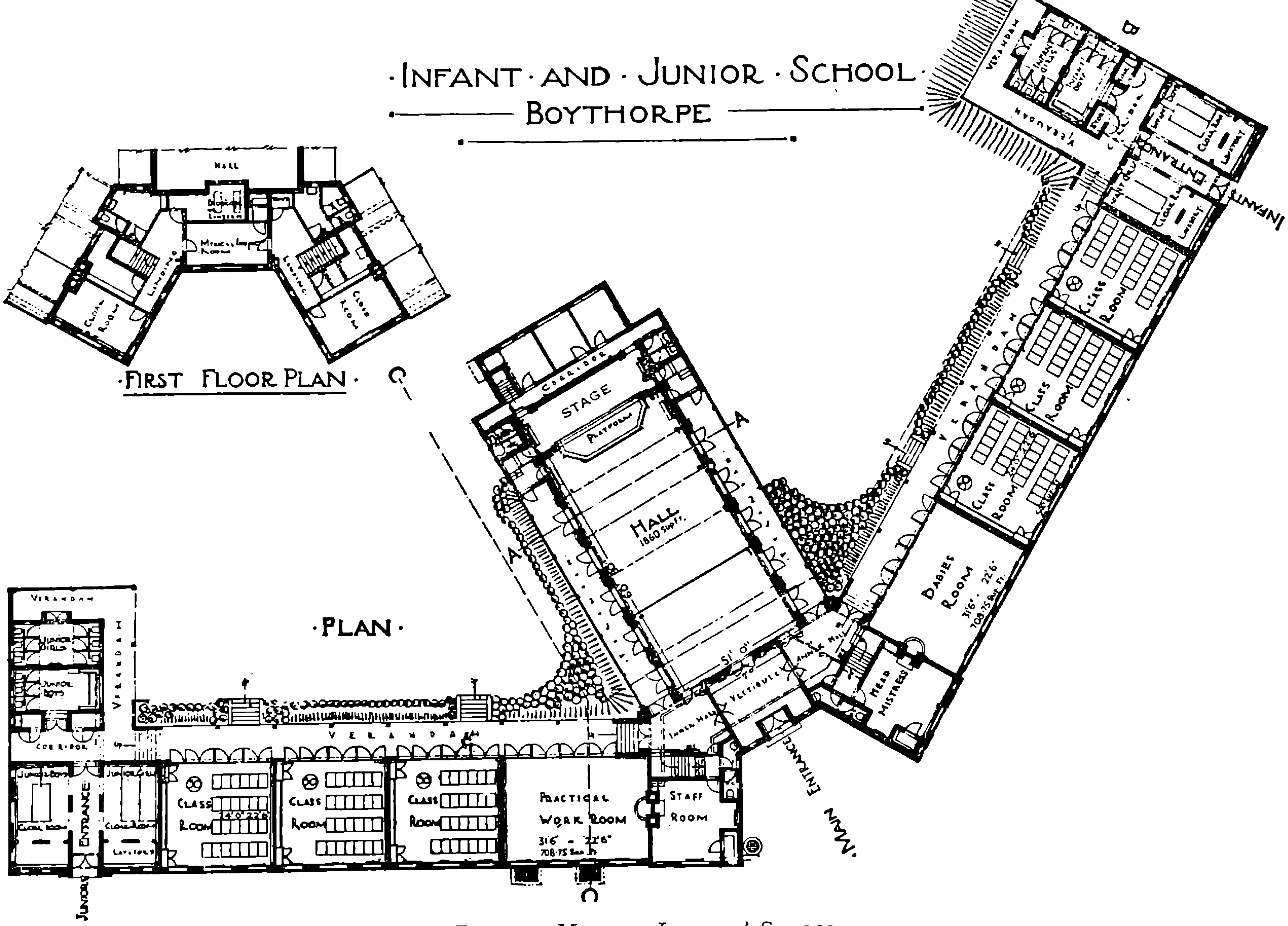
Before this point of accommodation, however, another consideration has to be taken into account, and that is the maximum number of children which any school can accommodate, compatible with efficient education. There obviously is a limit. Children, and young children in particular, need to feel that they matter; that they are not merely units in a mass. Personal knowledge of the children by the Head Teacher is essential, and it is doubtful if this is possible where the numbers attending the school are in

DIAGRAM XVI



Plan of Modern Quadrangular Type of School.

DIAGRAM XVII



PLAN OF MODERN INFANTS' SCHOOL.

excess of 300 or thereabouts. Again, a Junior School has a four-year age range (7 plus to 11 plus). Assuming each class to be 40, this gives a minimum accommodation of 160 where there is one class for each age. If there are two classes then the number becomes 320. It is becoming increasingly the practice, however, to have in a Junior School a *remedial* class—one in which, because of its smaller numbers, more individual attention can be given to children who are retarded in their work by reason of illness and subsequent absences from school, owing to some physical defect, or on account of some emotional disturbance. If such a class is restricted to 30, and is viewed as being outside the normal streams of classes, as it should be, then the numbers become 190 for the one-stream school and 380 for the two-stream school (with two remedial classes). Numbers which differ considerably from these are bound to cause difficulties in organisation. They either cause large classes or promotions at unsuitable periods or similar difficulties. Here again the legacy of old buildings becomes a handicap for such considerations as those put forward above were rarely taken into account in their construction. The need for providing for easy alteration of the interior arrangement of the building is clear. Difficulties also arise because children just do not get grouped in units which make possible schools of the theoretically ideal size. But the actual organisation of the school should be considered in every case before the school is actually planned, and not afterwards. If this is done, many difficulties can be obviated by regrouping the areas which the schools are to serve.

It will also be clear that these considerations are not the main ones when the building of small rural schools is under consideration. Here it is a case of providing for a small group of mixed age range. If the school is to provide for all aged children from 5 to 14 plus, then three rooms are essential, one each for Infants, Juniors, and Seniors. If the Seniors are transferred elsewhere then at least two rooms are necessary.

Lighting is another factor of general importance, and so is the ventilation. The old type of building with small windows, very few of which could be opened, dark and always lacking in supplies of fresh air has gone. It has been replaced by the modern school of the open air type, of which much of the classroom walls is composed of large glass windows and doors which can be opened wide whenever the weather is suitable. Further, there must be adequate lavatory and cloakroom accommodation. In modern schools the lavatories, constructed in accordance with up to date ideas, are an integral part of the school building, and it is no longer necessary

for young children inadequately clothed to run across an exposed playground in all weathers. Similarly, cloakrooms are airy, and in many cases the rails are heated in order to dry the clothes on rainy days.

These considerations apply to all schools. There are others which apply to particular kinds of schools. The Board of Education's views as to suitable provision for schools of various types is contained in the pamphlet to which reference has already been made. Regarding Infants' Schools it says:

" While increasing numbers of children have the opportunity of coming at an earlier age than five, the majority of children make their first school attendance at this age. It is clear, therefore, that the schools will have the responsibility of providing the type of education most suited to the particular stage of development which the children have reached when they first attend, and that the accommodation should vary in character according to this principle. The suggestions already made in detail on the provision of suitable premises for children attending school at three years can be modified gradually to suit the needs of older children.

" This broad conception of an Infants' School as providing suitable environment for the growing potentialities of its pupils has led to the formation in some areas of specially planned rooms for those children who first attend school at the age of five. These Reception Classes should, where possible, be housed in rooms rather larger than the ordinary classroom and should approximate to some extent to the ideals of the Nursery. The type of training in a class of newly admitted children will undoubtedly have many of the characteristics of that given in the Nursery Class, although the special design of offices, lavatory, cloakroom, storage, and playground may be adapted to suit the needs of children of five. As a whole it may be said that the minimum needs of a Reception Class are space; easy access to suitably planned lavatory, offices and cloakroom, and to the playground; and equipment with such furniture, toys and apparatus as the age and outlook of the children demand.

" The varied activities which form the main part of the education of the child in the Infants' School obviously require above everything spacious classrooms. No room for children of this age should be less than 520 square feet in area. In view of the fact that the size of the children in this age group varies considerably, all the classrooms should be equipped with furniture of varying sizes. The size and height of the children should similarly be considered in such matters as the placing of the door handles, which should be low down and may preferably be of the latch type rather than rounded. The windows, if not made to provide complete access to the open air, should be brought down to the eye level of the children, and should invariably be of clear glass. The furniture should be light and easy to move, and for this purpose dual tables and chairs are usually found most convenient. These may be fitted with some form of rubber tips in order to minimise the noise of constant movement. Since this type of furniture is to be preferred to desks with lockers, there will be need of cupboards to house materials, books

and toys, and these must be placed at a suitable height from the ground to enable the children themselves to keep them in good order. It will be necessary also to provide adequate storage for the use of the teacher.

" The requirements of physical training, music, rhythmic work and general assembly cannot be adequately met in an Infants' School without a Hall, though there may be some schools so small as to justify the acceptance of some alternative provision in the shape of a large room. Moreover, the widely increased interest and co-operation of the parents go far to necessitate the provision of a Hall for meeting and entertainment. In a large Infants' School a Hall of 1,800 square feet will probably not be excessive. In a small school of two or three classes a room of 1,000 square feet, divisible if need be into two ordinary classrooms, would constitute a workable substitute for a Hall.

" Though there is no necessity to provide a stage in the Infants' School Hall, a small platform will undoubtedly be convenient, and a piano is a necessary piece of equipment. Many schools now make valuable use of large toys and apparatus which cannot easily be stored in the classrooms, and a store room for such equipment near the Hall will be of great service.

" The offices, lavatory and cloakroom in any Infants' School should be very carefully planned in view of the fact that training in personal hygiene and good social habits is an important side of the work.

" The lavatory basins should be of varying heights; probably 14, 17 and 20 inches from the ground would meet all needs. For juniors and seniors a system of troughs and sprays which is rapidly coming into favour, may be adopted. Circular spray washing fountains are also suitable. Care should be taken to install basins or troughs at convenient heights for the children who are likely to use them. Wherever possible hot water with control taps to prevent scalding in the case of the younger children, should be provided. A plentiful supply of hot water throughout the school year, with an adequate quantity of soap and towels, is one of the most effective aids in the social instruction given in the school.

" Except in small schools, lavatory basins should not be placed in cloakrooms and they should also preferably be separate from the offices.

" Every Infants' School should have a separate playground and the site should be adequate for this purpose. In the case of infants the playground is in a special sense an educational space and it is, therefore, very desirable that some portion of it should be laid out with grass and flower beds; wherever possible any trees which exist on the site should be preserved and it is not necessary to level any gentle slopes. Sufficient level, hard surface will, of course, be needed for purposes of physical training out of doors, but the real value of the playground to young children will be lost if it consists merely of a bare asphalted space."

With respect to Junior Schools the suggestions of the Board are as follows:—

" It is not perhaps an exaggeration to say that the Junior School, as a separate entity, is still in process of development, and for this reason any

dogmatic statement as to its character and requirements is inadvisable. The Junior School caters for a period of rapid physical and mental growth, and during this period the idea of education through activities will be carried on from the Infants' School, while, at the same time, the children begin to acquire certain definite accomplishments or skills and a certain body of knowledge, both of which will gradually assume a more marked significance as the children approach the Senior School stage.

" The bearing of this conception of the aims of the Junior School on the size and design of the classrooms is clearly of great importance. In the classroom a large group of children will carry out a considerable variety of activities and will need accommodation for books, materials and equipment. No classroom of less than 520 square feet will be fully serviceable, since the appropriate furniture consists of chairs and tables which occupy more space than desks. Moreover, it is essential that there should be sufficient floor space to make possible a variety of teaching methods and to meet the common criticism that there is inadequate room for cupboards for the necessary storage. The Junior School will also need some rooms of rather larger proportions, up to an area of 700 square feet, more particularly fitted for adventures in elementary crafts. It should contain a sink with hot and cold water, large cupboards for the storage of materials and unfinished work, and at least one table of rather greater weight and solidity than the children's individual tables. One such room to every four classrooms would be a great asset in a large Junior School, and in the smaller school one of the classrooms should be large enough to provide accommodation for the appropriate crafts. Both in the classroom and the craft room allowance should be made for the very different sizes of the children, and, indeed, in every room of the school the size and height of the children should be carefully considered when chairs, tables and cupboards are being selected. The substitution of tables for the traditional desks in the classroom brings into prominence the importance of a satisfactory provision of lockers or cupboards to house the children's own books and apparatus. The need for keeping the furniture of the room sufficiently light to admit of easy re-arrangement suggests that some form of wall locker is preferable to locker tables or desks.

" A Hall is an essential part of the accommodation, for many of the needs and interests of the Junior School cannot be served in the classroom. In very small schools, with three classes or less, however, it may be possible to regard the Hall as one of the normal class spaces.

" The considerations set out above apply also to those cases where there is not a separate junior department, the juniors and infants being taught in the same school. Where such an organisation results in a large school, in addition to the Hall a large room should be provided where the infants can play.

" In considering the playground of the Junior School certain particulars should be stressed. The playground space should include a suitably paved surface which can be used for physical training and games in good weather. But it will be unfortunate if there is not, in addition, adequate garden space, the cultivation of which can be a very practical part of the children's activities and give pleasure to the whole school.

" In the provision of cloakrooms and offices certain essentials should be secured. The cloakrooms should be sufficiently warmed to make it reasonably possibly to dry wet clothes. For the emergency of really wet weather, and especially in those districts where the children walk far to school, it will be found advisable to provide a separate drying room for wet garments.

" In the offices of the Junior School separate provision must be made for boys and girls. The offices should be attached to the building, or reached by a short covered approach. Following the careful training in personal hygiene which forms a vital part of the Infants' Schools' task, the lavatory provision must be such as to allow the continuance of this training.

" Where there is no demand for a canteen a ' kitchenette,' or some suitable arrangement for heating milk is desirable."

Senior Schools are dealt with similarly. The Board's pamphlet discusses Senior Schools which admit one, two, or three streams each year, single sex and mixed schools, and the accommodation necessary where " Higher Tops " only are possible. The appropriate paragraphs are:—

" When the question of the accommodation to be provided for Senior Schools is considered, the problem is somewhat changed. The main task of these schools is to develop the character and intelligence of children according to their very different capacities and tastes, and to provide them with a mental and physical equipment, suited as far as possible to the ability of the individual, on which they can rely when they go out into the world. It will still be necessary, as in the Infants' School, to stimulate the child's activities and, as in the Junior School, to combine that stimulation with the acquisition of a certain amount of formal knowledge; but it will be no less important to create tastes and interests which will remain with the pupils after they have left school, and to give them means and occasions for understanding their own place and function in an ordered community. For this purpose the Senior School should, in the words of the Hadow Report, itself form an ' Ordered Society.'

" Thus a Senior School is visualised as having an organisation very largely concerned with bringing out and providing for the particular powers and activities of the individual child. In the sections and schedules that follow, the term ' classroom ' is used to denote a room in which the pupils are normally engaged in regular classwork of a sedentary character, while the term ' practical room ' is used to cover all the larger teaching spaces. When it is realised that the practical rooms include not only those appropriated to Manual or Domestic Work, but also those devoted to Science in all its aspects, to Art and to Crafts in their various forms, it will probably be not unreasonable to suggest that the accommodation of a Senior School should be divided almost equally between classrooms and practical rooms. It should be noted that, as the practical rooms, besides being no less important than the classrooms, are far harder to plan, their number and arrangement is one of the first points to consider in designing a new Senior School.

" New Senior Schools should be planned with a school-leaving age of 15 in view; and though it may not always be possible to estimate the number of children who will remain to that age, or beyond it, and account must be taken of special local circumstances, it will be reasonable to take a four-years' course as the normal standard of provision.

" It is probable that in many cases new Senior Schools will be built in areas where there is a sufficiently large population to justify a comparatively large concentration; but it may be convenient in the first instance to illustrate the application of these principles to a medium sized type of school, namely, the ' two-stream ' school with an annual intake of approximately eighty children. Each intake can be divided, normally on a basis of ability, into two classes or streams for the assignment of teaching spaces; and this ' two-stream ' organisation may be expected to persist in outline during the school course, though there will, it is hoped, be considerable fluidity of organisation throughout. With a complete four-years' course there will be eight forms in the school.

" Every Senior School of this size should have a Hall of not less than 1,800 square feet; and, as the use of the Hall for an adequate programme of physical training would seriously militate against its usefulness for other purposes, the provision of a gymnasium or a physical training room in addition would be most advantageous.

" Such a school will need accommodation for a whole class in Science and, unless a ' mixed ' school for boys and girls, for a whole class in Manual or Domestic Work. There is still some difference of opinion as to whether children should be taken for Science in a whole class of forty in one large room of not less than 960 square feet, or in two half-classes of twenty in two smaller rooms of 600 square feet each; but it would appear that on the ground both of economy and of educational advantage the single large room is in many ways preferable. Similarly, as regards Manual Work, there may be some difference of opinion as to whether the space provided, which should be not less than 1,500 square feet in all, should be divided into two separate rooms for half-classes of twenty or kept as one large room for a full class. For Housecraft two rooms are required, of not less than 750 square feet each. In mixed schools of this size the room provided for Manual Instruction should be 850 square feet and that for Housecraft not less than 750 square feet. In this case each room would be intended to take a half class.

" In such a two-stream school the remainder of the accommodation should be divided in the proportion of four classrooms and three practical rooms. The size of the classrooms will depend to some extent, both on the nature of the furniture with which they are to be filled, a point that is often considered at too late a stage in the preparation of the plans, and on the nature of their fittings. While the classrooms fitted with chairs and tables and other furniture will normally require an area of 520 square feet, it should not in any case be necessary to exceed that area.

" In the case of the remaining practical rooms it may be assumed that one will be primarily devoted to Art and to certain kinds of Craft Work, for which a room of 900 square feet is desirable; the needs of the remaining crafts and practical work can be met by two rooms of 700 square feet.

" Where circumstances warrant the provision of any accommodation in excess of this, the addition may take the form of a Library fitted with bookshelves, tables and chairs.

" As has already been indicated, it is to be hoped that in many areas it will be possible to effect larger concentrations of the senior children in three-stream schools with 12 forms in a complete four-years' course. Generally speaking for such a school the same provision as in a two-stream school will be required for Science, Manual Instruction and Housecraft, together with a Hall of 1,800 square feet, with a stage in addition, and the necessary provision for indoor physical training. The remainder of the accommodation will be divided between six or seven classrooms and four practical rooms on the lines indicated in the preceding paragraph.

" If special conditions in some districts lead Authorities to contemplate the possibility of still larger concentrations in four-stream schools with 16 forms in the complete four-years' course, the accommodation required will be approximately double that required for a school for 320 children. In such cases the amount of accommodation required must be decided on the particular conditions, but the Board consider that, although such an organisation may have its advantages, these are more than counterbalanced by its disadvantages.

" The case of the small single-stream Senior School, with an annual intake of not more than 40 children and a maximum roll of 160 for a complete four-years' course, is one of special difficulty. Such schools will almost invariably be mixed schools in rural areas. That such a school needs a Hall for assembly as well as for physical training, admits of no doubt and, in a school where the numbers on the roll are likely to be nearer 200 than 100, the Board would be reluctant to approve proposals that did not provide for a Hall of at least 1,250, and if possible, 1,500 square feet.

" In the Board's view, however, the most important feature of the small Senior School should be its practical rooms, of which there should be at least two. The allocation of these rooms will no doubt vary to some extent with circumstances, but it is clear that they will have to be multiple-purpose rooms. The arrangement and use of a practical room for two or more differing activities is never easy, but it is perhaps most difficult and wasteful when the room is to be used for Manual Instruction and Housecraft, and the Board hope that this combination will be avoided. On the assumption that the rooms will be assigned, one to Manual Instruction and Science and one to the various Domestic Crafts—an arrangement which the Board are disposed to think less open to objection than any other—neither room should be smaller than 750 square feet, and one room at least, that for Manual Instruction and Science, if not both rooms, should be not less than 900 square feet preferably based on a width of 24 feet.

" In addition, a minimum of three other teaching spaces will be required. In single-stream schools with a small annual entry, where there is a Hall which can be used, with suitable furniture, for teaching purposes in addition to its normal functions, two classrooms of normal size may complete the provision. Where, however, there is no Hall, or in single-stream schools with a normal entry, three classrooms will be needed, and it is desirable that

unless there is a Hall, one of these three teaching spaces should be a practical room of 750 square feet, suitable for Art and its allied crafts. It should perhaps be pointed out that in schools where the practical rooms have to be used for several purposes, including some classwork, it is particularly important that the question of the furniture and fittings to be used and the provision to be made for the storage of books should be settled when the size and allocation of the rooms is decided.

" In certain conditions distance and difficulty of transport may render impossible the concentration of even the small number of senior children necessary to form a single-stream Senior School. In such cases, the minimum which the Authority or Managers concerned should aim at securing is that the group of children between 11 and 15 years of age should be assured of proper provision for the practical work which will form for them, as for other senior children more fortunately situated, the most essential part of their course. In the second place, separate accommodation should, so far as is possible, always be arranged for the senior children."

These " Senior Tops " are likely to fall into two main categories, those with an annual intake of 10 to 20 children and a total number of 40 to 80 seniors, and those with an intake of less than 10 and a total of less than 40. It would be undesirable and indeed impossible to lay down any rigid line of demarcation, but it may be generally said that for the first category the provision needed for practical work is substantially the same as in the case of the one-stream Senior School. Not only is this amount of accommodation needed for the effective instruction of the children, but it is the only way of securing economy in staffing. These " Senior Tops " will normally be served, so far as the teaching of Handicraft and Housecraft is concerned, by visiting teachers, and it is obviously desirable that the classes should be as near the normal size of 20 as possible. This can only be secured if the accommodation is sufficient for such a number. In the second category, the total numbers are likely to be so small that their requirements in the way of practical work may be met by one multiple-purpose room of about 750 square feet.

" If the practical work of these children can be arranged for on the scale suggested above, the remaining accommodation to be reserved for them need not in the case of either category exceed one additional classroom of the normal size.

" Where a considerable number of children stay at school for dinner in the middle of the day, the nature of the accommodation to be provided for midday dinners will have an important bearing on the total amount of accommodation. A separate kitchen, placed conveniently near the room in which dinners are to be eaten, will be necessary in such cases, unless the number of children staying for dinner is very small indeed; and, similarly, it is on this number rather than on the size of the school that the justification

for a separate dining room will rest. Considerations of economy require, provided that a proper standard of order and cleanliness can be secured, that the dining accommodation should be so arranged as to serve also, to the greatest possible extent, as an instructional part of the school premises.

" There appear to be three possible methods of making this provision:—

" (*a*) In small schools the Housecraft room may be used as a dining room. Where the number of children staying to dinner is more than twenty, however, there are very serious objections to this arrangement, and in any case it is very desirable that there should be separate facilities for cooking the daily school dinner.

" (*b*) In many cases the Hall may be used, and if this is not big enough to accommodate all the children staying to dinner at one ' sitting,' two shifts of dinners may be arranged.

" (*c*) If the use of the Hall for dining would prevent its effective use for other necessary purposes, especially for physical training when there is no special room for this purpose, a separate dining room may have to be provided. This need not be of an expensive form of construction; it could also, if large enough, serve as additional accommodation for use as a room for needlework or for other forms of practical work during the period when it is not needed for the preparation or serving of dinner.

" If arrangements for providing school dinners are not required and there is no kitchen, there should be some facilities for heating milk or other hot drinks. A simple " kitchenette " centrally situated, where the bottles in which milk is usually delivered could be heated, will be sufficient for this purpose."

Diagram XVIII is based upon the Board's schedule of accommodation for Senior Schools, and summarises the Board's suggestions.

DIAGRAM XVIII

Schedule of Accommodation in Senior Schools as Suggested by the Board of Education

1. **Senior Schools admitting Three Streams** (i.e. *approximately* 120 *children*) *yearly. Maximum roll of school* 480.

(*a*) A Hall of 1,800 sq. ft. plus stage.

(*b*) A room for physical training (1,800 sq. ft.).

(*c*) A Science Room of 960 sq. ft. or two rooms of 600 sq. ft. each.

(*d*) (i) In boys' schools accommodation for a full class for woodwork and metalwork in one room of 1,500 sq. ft. or in two rooms of 850 sq. ft.

(ii) In girls' schools two rooms each equipped for cookery and laundry work of not less than 750 sq. ft.

(iii) In mixed schools one room for woodwork and metalwork of 850 sq. ft. and one for cookery and laundry work of 750 sq. ft.

(*e*) Four practical rooms, one of 900 sq. ft. and three of 700 sq. ft. each.

(*f*) Six or seven classrooms of 520 sq. ft. each.

2. Senior Schools admitting Two Streams (i.e. *approximately* 80 *children*) *yearly. Maximum roll of school* 320.

(*a*) A Hall of not less than 1,800 sq. ft. plus stage.

(*b*) A room for physical training (1,800 sq. ft.).

(*c*) A Science room of 960 sq. ft. or two rooms of 600 sq. ft. each.

(*d*) (i) In boys' schools accommodation for a full class for woodwork and metalwork in one room of 1,500 sq. ft. or in two rooms of 850 sq. ft.

(ii) In girls' schools two rooms each equipped for cookery and laundry work of not less than 750 sq. ft.

(iii) In mixed schools one room for woodwork and metalwork of 850 sq. ft. and one for cookery and laundry work of 750 sq. ft.

(*e*) Three practical rooms, one of 900 sq. ft. and two of 700 sq. ft. each.

(*f*) Four classrooms of 520 sq. ft. each.

3. Senior Schools admitting One Stream (i.e. *approximately* 40 *children*) *yearly. Maximum roll of school* 160.

(*a*) A Hall of 1,250-1,500 sq. ft. or an additional practical room.

(*b*) One room for woodwork, metalwork and Science of 900 sq. ft.

(*c*) One room equipped for cookery, laundry work and needle-work of 750-900 sq. ft.

(*d*) A practical room of 750 sq. ft. or a Hall.

(*e*) Two classrooms of 520 sq. ft. each.

It should be stressed that these are minimum requirements. The temptation is for them to be regarded as maximum ones by Local Authorities. Further, the continued use of old buildings makes it impossible to provide in many cases even this minimum. Extra classroom space is always serviceable and, in fact, is essential if group activities and experimental work is to be done. The Board's recommendations indicate, however, the rapid progress which has been made in the planning of school buildings in recent years. They also stress most clearly the need for connecting function with design.

One or two actual examples of school buildings might enable the student to appreciate what can be done with old buildings, and what can be provided in new ones.

The first example is that of a well built school in a congested area which accommodated prior to reorganisation an Infants' Department, a Girls' " all-age " Department, and a similar Department for Boys. Diagram XIX (p. 75) gives the plan of the original buildings. It was erected in 1873 and consisted in the main of

three large rooms, one each for boys, girls, and infants. The infants' room was the centre room, and was 48 ft. long by 30 ft. wide. This room was provided with galleries. At right angles to this was, on the north, a long room for the boys, 67 ft. by 18 ft. Opening from this was a small classroom 18 ft. by 14 ft., and the boys' entrance lobby. On the south side of the infants' room and again at right angles to it was the main school-room for the girls, 45 ft. by 18 ft. Between this and the infants' room was the girls' and infants' entrance and another small classroom for girls, measuring 17 ft. by 14 ft. The school therefore consisted of three main and two small rooms.

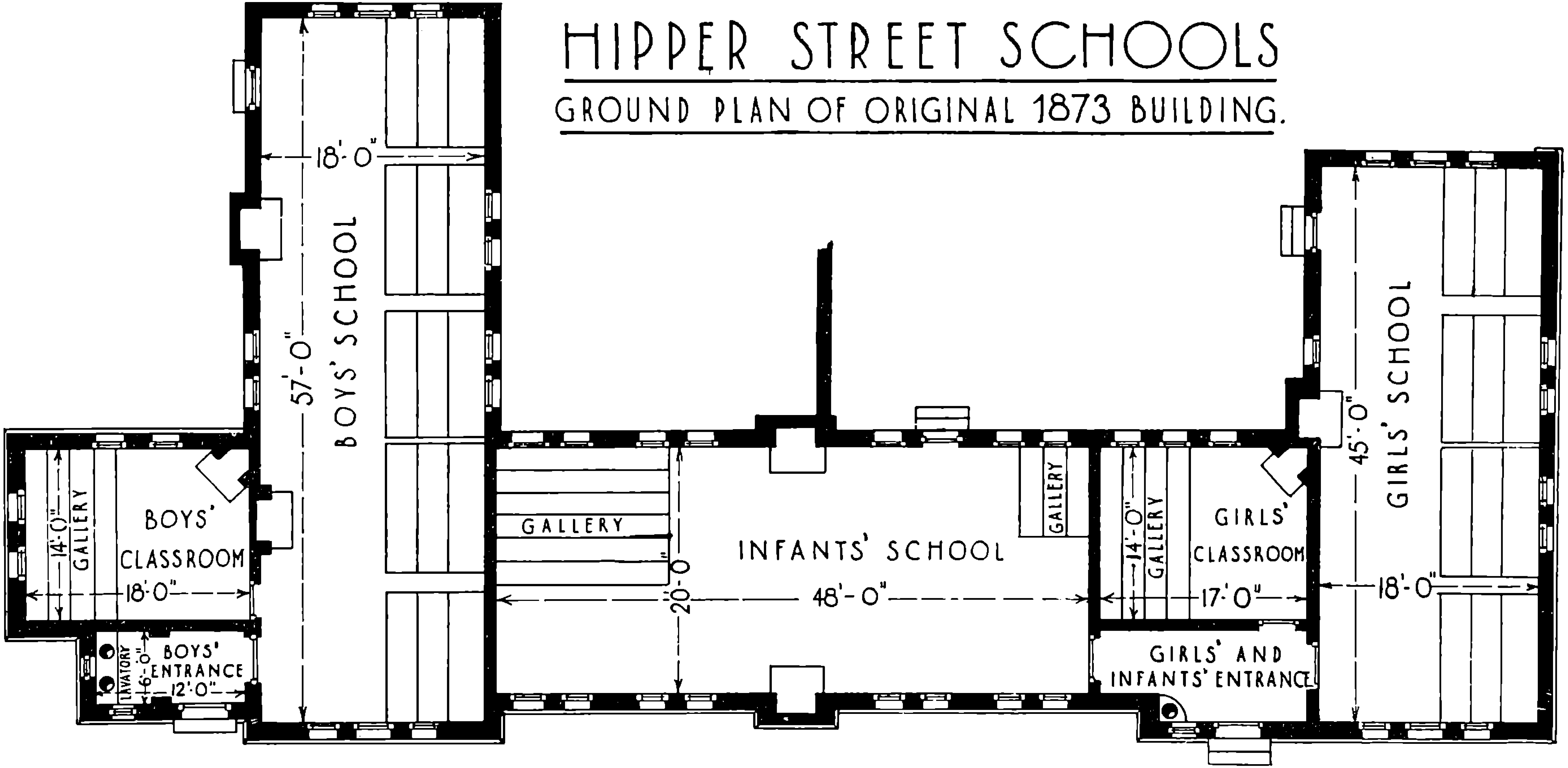
Alterations and extensions to this school took place between 1876 and 1882. In the main these resulted in the boys taking over the old infants' room and retaining their existing quarters. The infants were moved to the existing girls' quarters, and a new wing, at right angles to the old main building, was erected to accommodate the girls. Another boys' classroom was added to the north-west corner of their old long classroom, and a second at right angles to the old Infants' School. The school was then supposed to provide accommodation for 317 boys, 160 girls, and 150 infants. Such was the legacy of the past !

Hadow reorganisation resulted in this school becoming one for infants and juniors, the older children being removed to newly organised senior schools. But it had to be made fit for its new purpose. Structurally the building was sound and the main outside fabric has been retained, with the exception that large and modern windows have been substituted for the old ones. The main feature of the alterations was the driving of a corridor right through the building from north to south. This corridor, which becomes a verandah in places, gives light and air to all the classrooms. Two classrooms can be thrown into one to make an assembly hall which measures 49 ft. by 18 ft.

Diagram XX (p. 76) shows the school as it exists to-day. It now accommodates about 250 juniors and 150 infants, and has a nursery room attached to the Infants' School. The cost of the alterations was £4680, and if the school has not the full amenities of a completely new school, it is a good illustration of what can be done with a building which persists in outliving the ideas which gave rise to it. The two plans should be compared very carefully. It will then be noticed how the driving of the corridor through the original building was the keynote to the reconstruction effected.

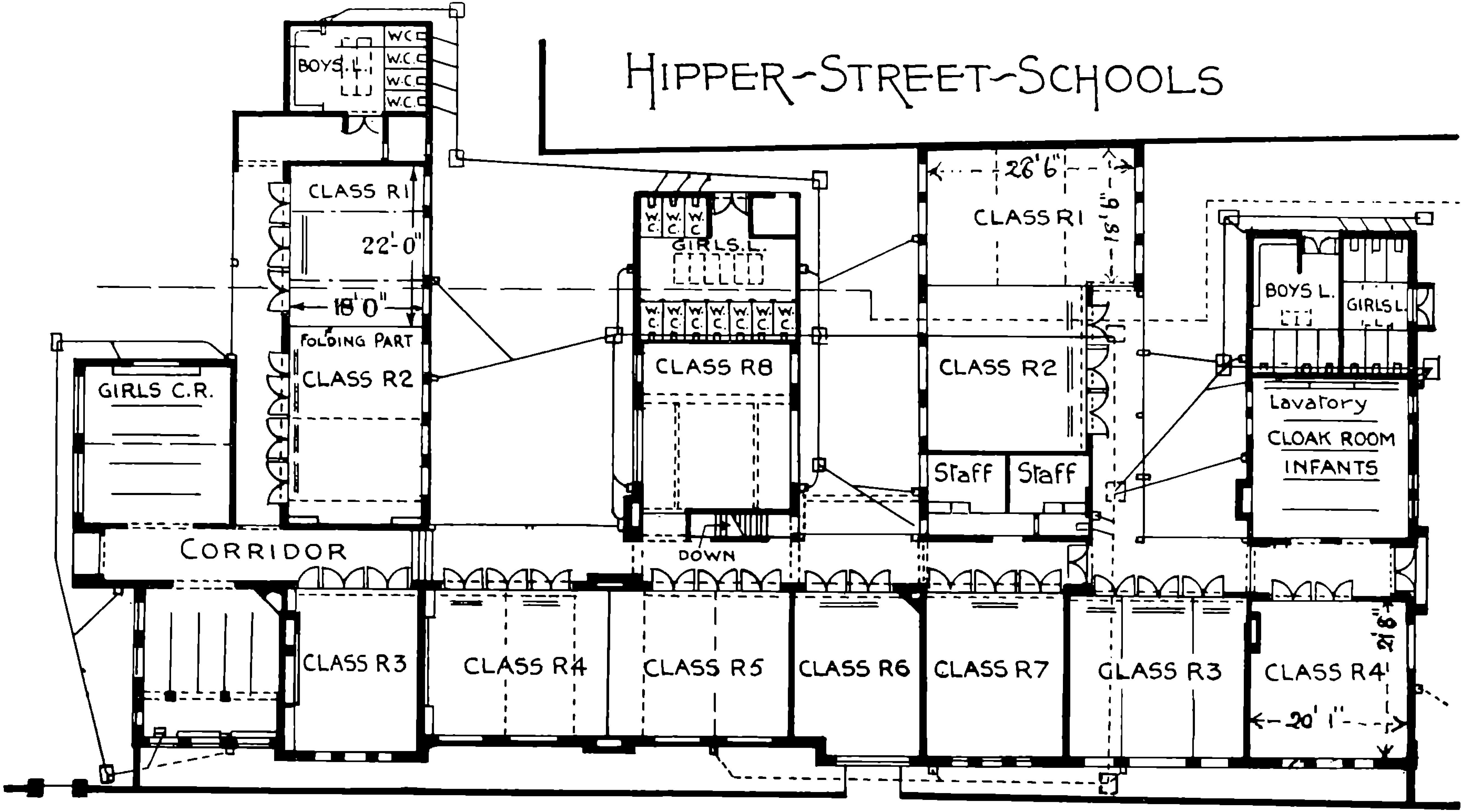
The second example is that of a school which was originally an all-age mixed school, and was first opened in 1876. In 1911 the

DIAGRAM XIX



PLAN OF "ALL AGE" SCHOOL.

DIAGRAM XX



Plan of Same School (p. 75) Reconstructed.

infants were transferred to a new school, and the older scholars occupied the whole of the older one. In 1918 a temporary school for the girls was erected in the school yard, and the boys spread over the old building. This building is shown in Diagrams XXI (p. 78) and XXII (p. 79). It originally consisted of three large rooms, one each for boys, girls, and infants. The building was reconstructed by the same method as that described in the previous example, *i.e.* by driving a corridor through the whole length of the schools. To the old school was added the wing on the south side, and subsequently the Hall and large Craft Room on the east. The school is working most efficiently, and once more the legacy of the past has proved capable of use.

The third example is of an entirely new school. This is a Boys' Senior School, and was erected some five years before the publication of the Board's pamphlet on school buildings. The school accommodates 480 boys and is illustrated in Diagram XVI (p. 62). It consists of a rectangular block which, excluding a verandah 7 ft. 6 in. wide which runs all round, encloses a courtyard 160 ft. long by 73 ft. wide. The quadrangle is grass-covered with flagged paths crossing at right angles and leading to various flights of steps. The accommodation consists of a Hall (not shown in the plan but approached by the passage between the Handicraft room and Gymnasium, and measuring 60 ft. by 31 ft.), a Gymnasium measuring 60 ft. by 30 ft., a Craft room 60 ft. by 25 ft., a Science room and an Art room each measuring 37½ ft. by 24 ft., and ten classrooms, eight of which measure 22½ ft. by 24½ ft., while two measure 28 ft. by 21½ ft. This accommodation should be compared with that given in the schedule of accommodation given earlier in the chapter.

In some areas there are old mansions which are now too large for residential purposes. When the structure is sound and the site suitable, and the building lends itself to adaptation and reconstruction, it is often possible to convert such buildings into good schools. Two such examples are illustrated below. The advantage lies usually in the attractiveness of the site, the sense of dignity of the building, and in the matured and delightful grounds. Often such buildings were the residences of those who owned the surrounding land. Often this has now become building estates, and where this has happened the old mansion, from its situation, is the ideal place for the estate school and the centre of its cultural activities.

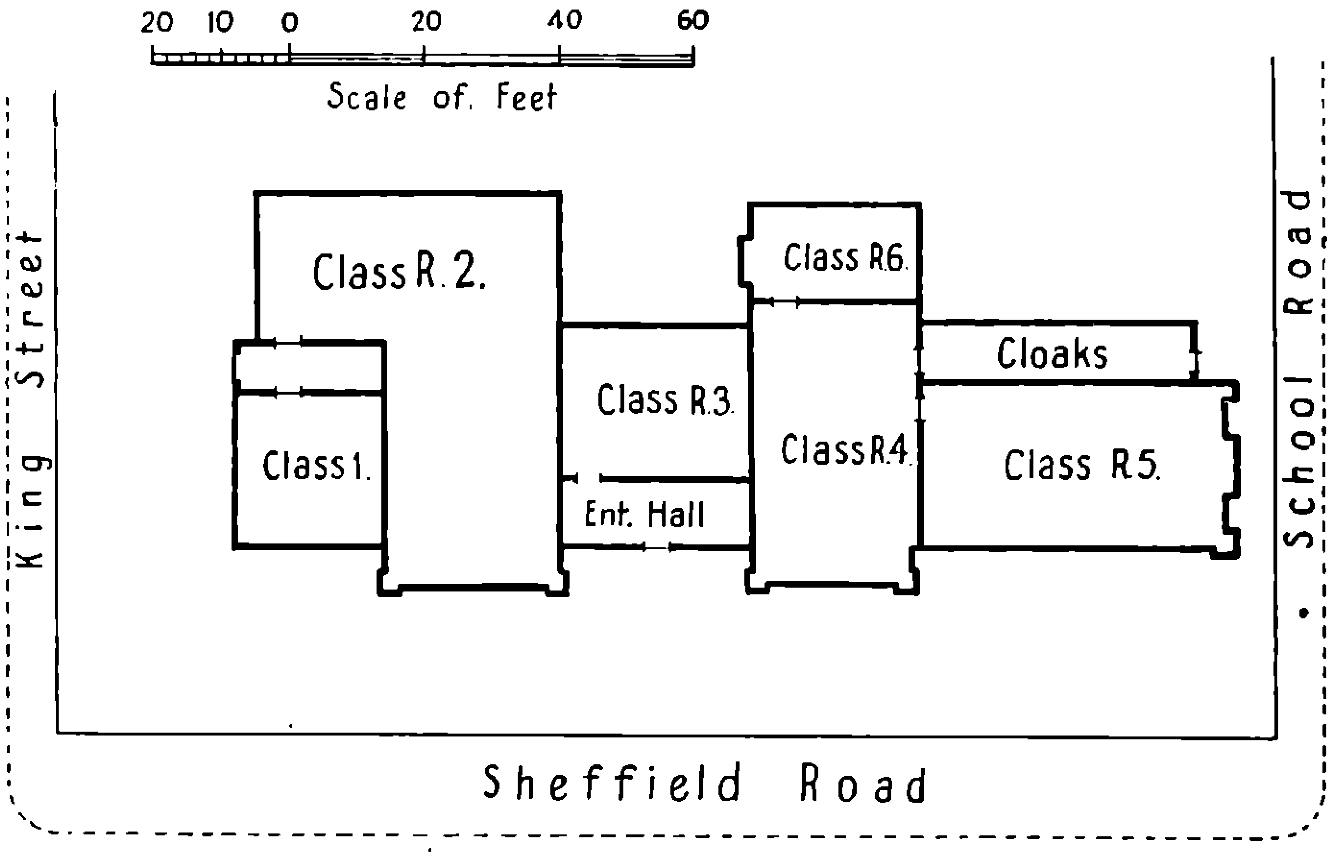
Diagrams XXIII and XXIV (pp. 80-1) show one such old building and its reconstruction and extension to make it into a mixed modern

Senior School, while Diagrams XXV and XXVI show a second building converted into a Selective Central School. The cost of school buildings varies with the materials used and the accommodation provided, but it is usually agreed that from £30 to £35 per school place provided is a fair average cost.

To complete this brief account of school buildings plans are also given of a modern Infants' School (Diagram XVII) and a modern Open Air School and Psychological Clinic (Diagrams XXVII and XXVIII).

The above are all plans of actually existing schools. But some pioneering educationalists and architects have visions of school buildings more completely suited to their function than anything

DIAGRAM XXI



yet erected. In 1937 the *News-Chronicle* conducted a competition for architects—awarding premiums in various classes for the best designs for senior schools. The winning design is reproduced in Diagram XXIX. It shows what remains to be done, but it also indicates how rapid progress has been since the 1870's which saw the erection of schools of the type shown in Diagrams XIX and XXI.

To sum up, the main demand is that the school should function. It should aid the organisation of the work, not put obstacles in its way or make effective organisation impossible. The building and the amenities it provides are bound to be taken into consideration in organising the school housed in it. They should not be such that they condition the organisation.

DIAGRAM XXII

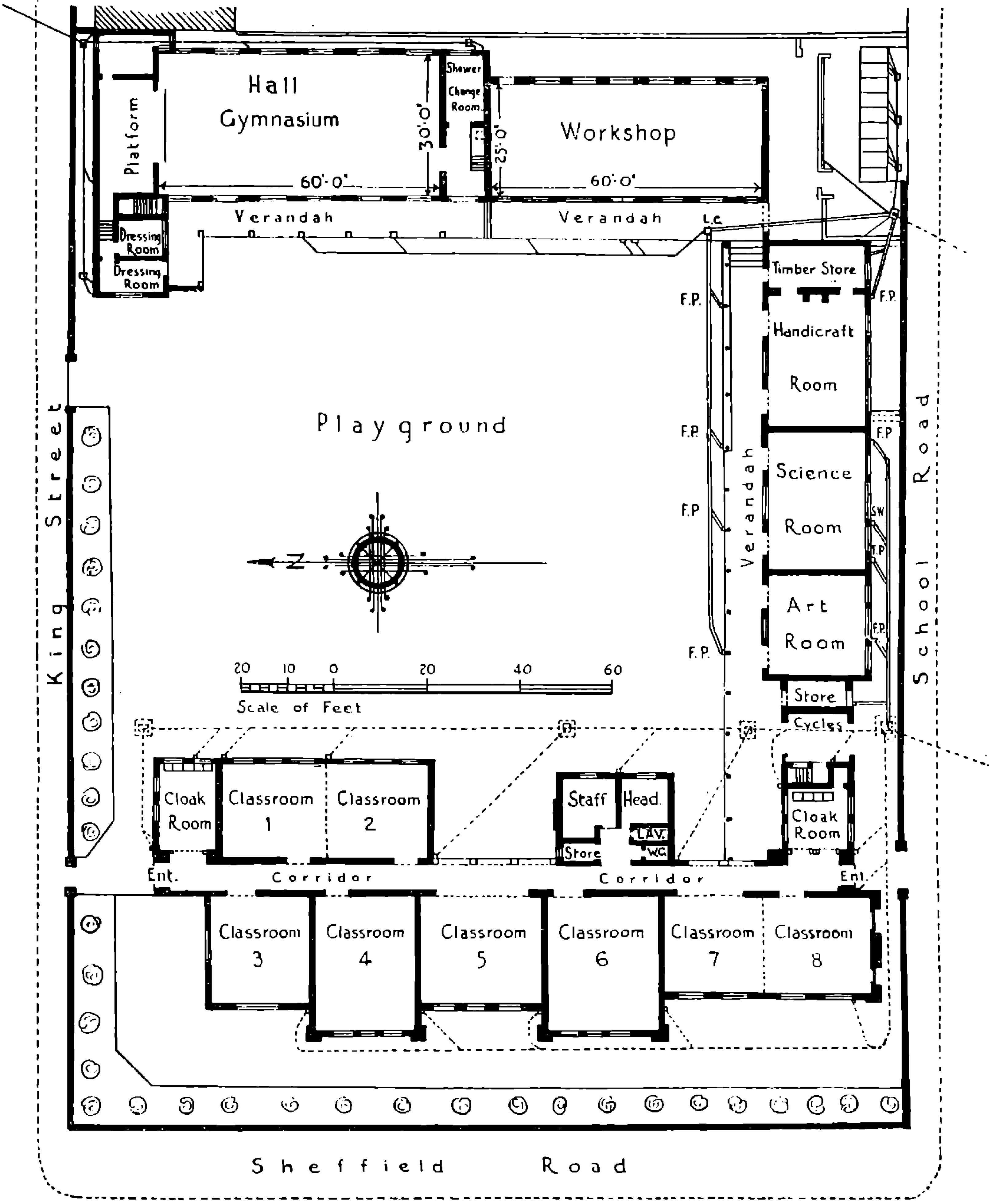
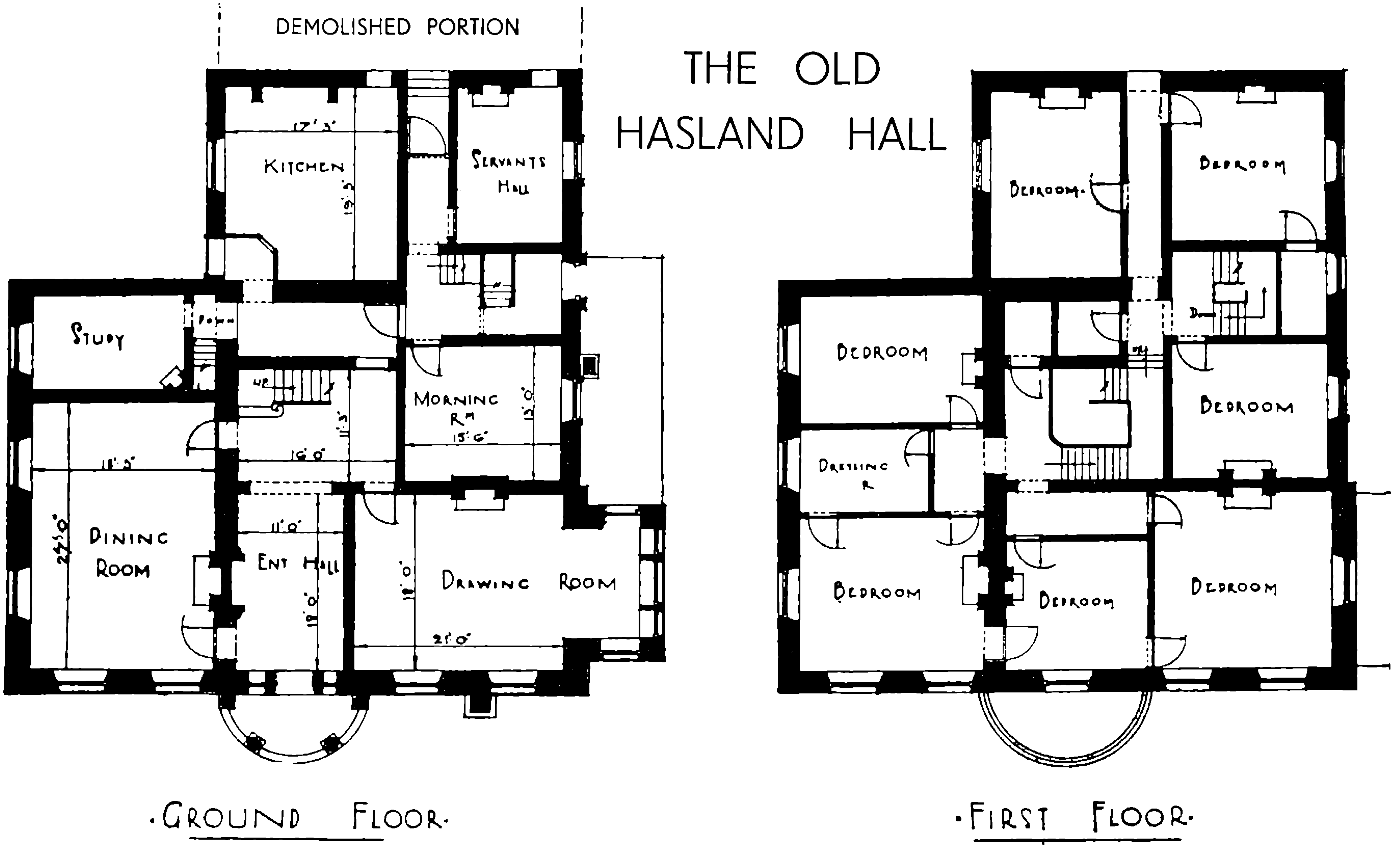


DIAGRAM XXIII

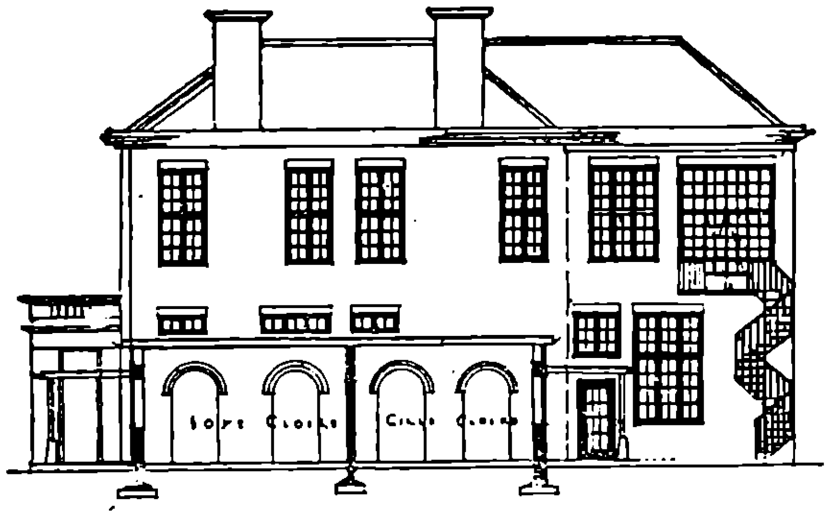


PLAN OF OLD MANSION HOUSE RECONSTRUCTED AS A MIXED SENIOR SCHOOL.

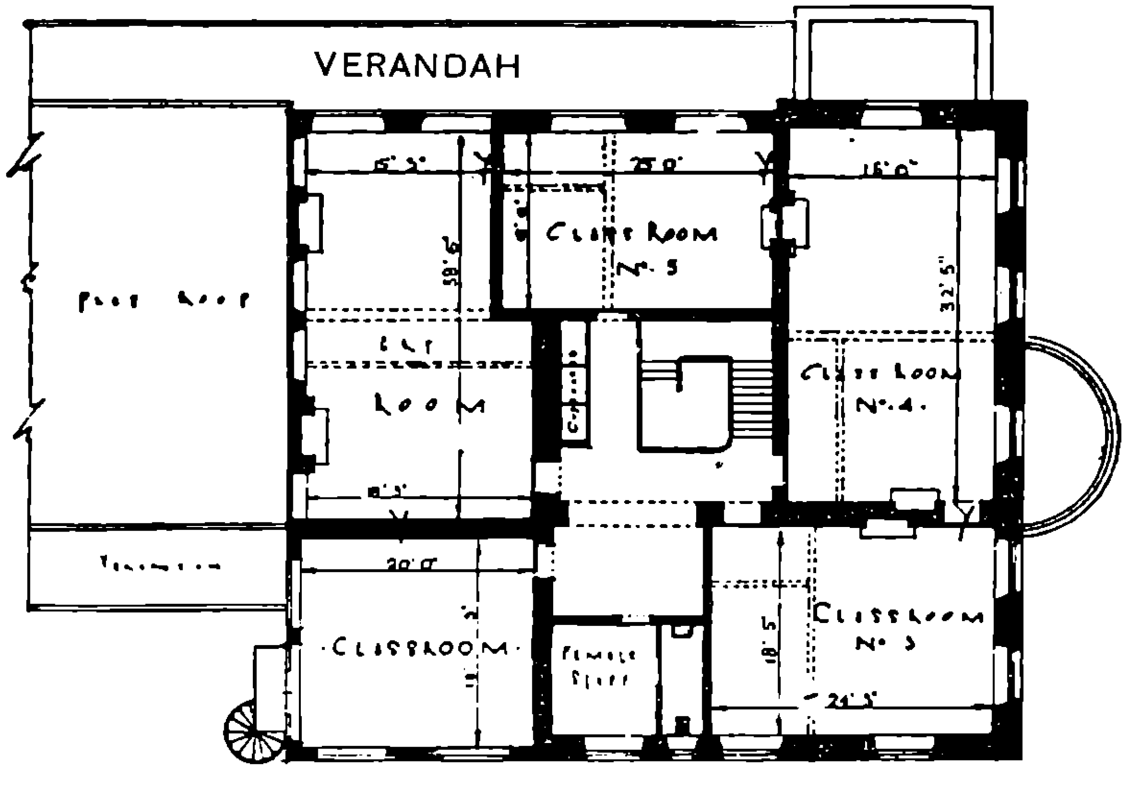
DIAGRAM XXIV

HASLAND HALL SCHOOL

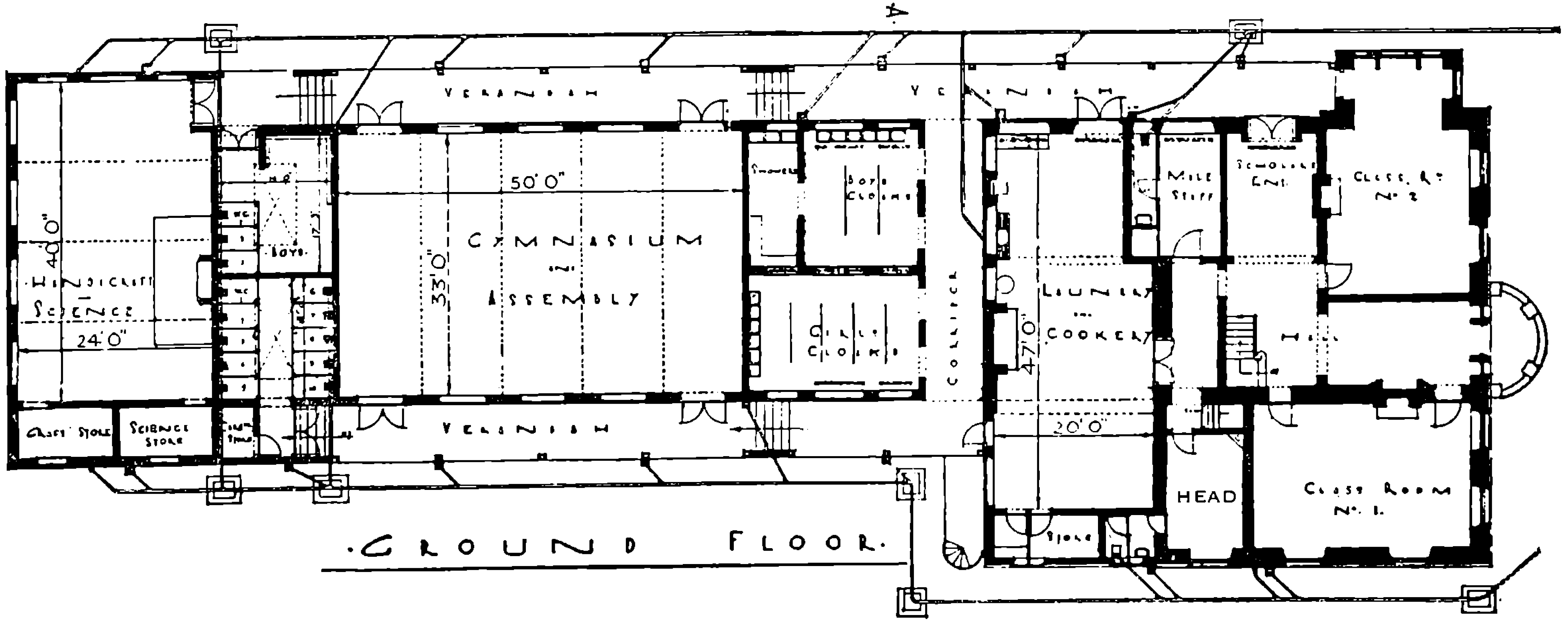
Mixed Senior School (Converted Mansion House).



·Sectional Elevn. A·A·

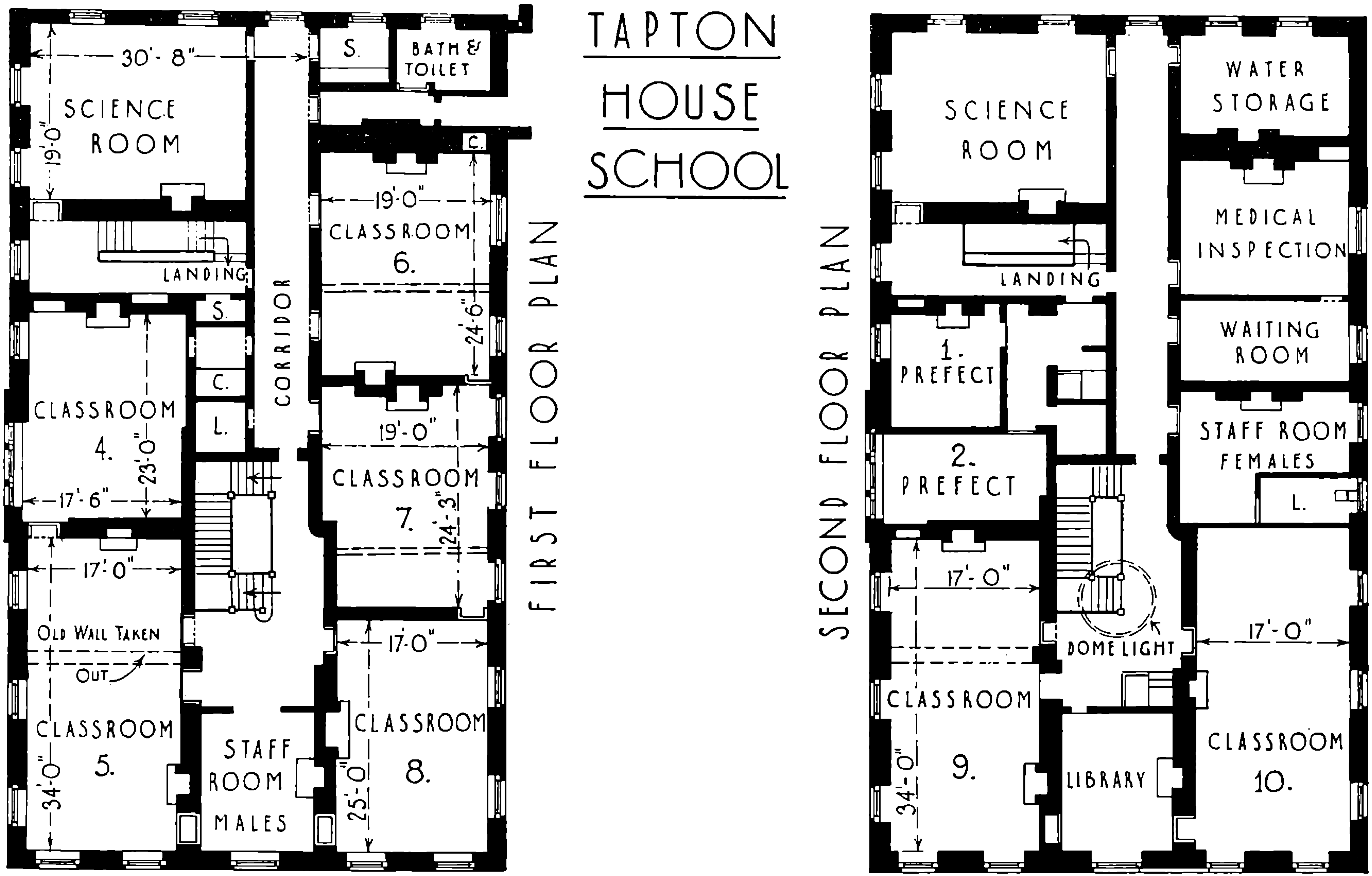


·First Floor Plan·



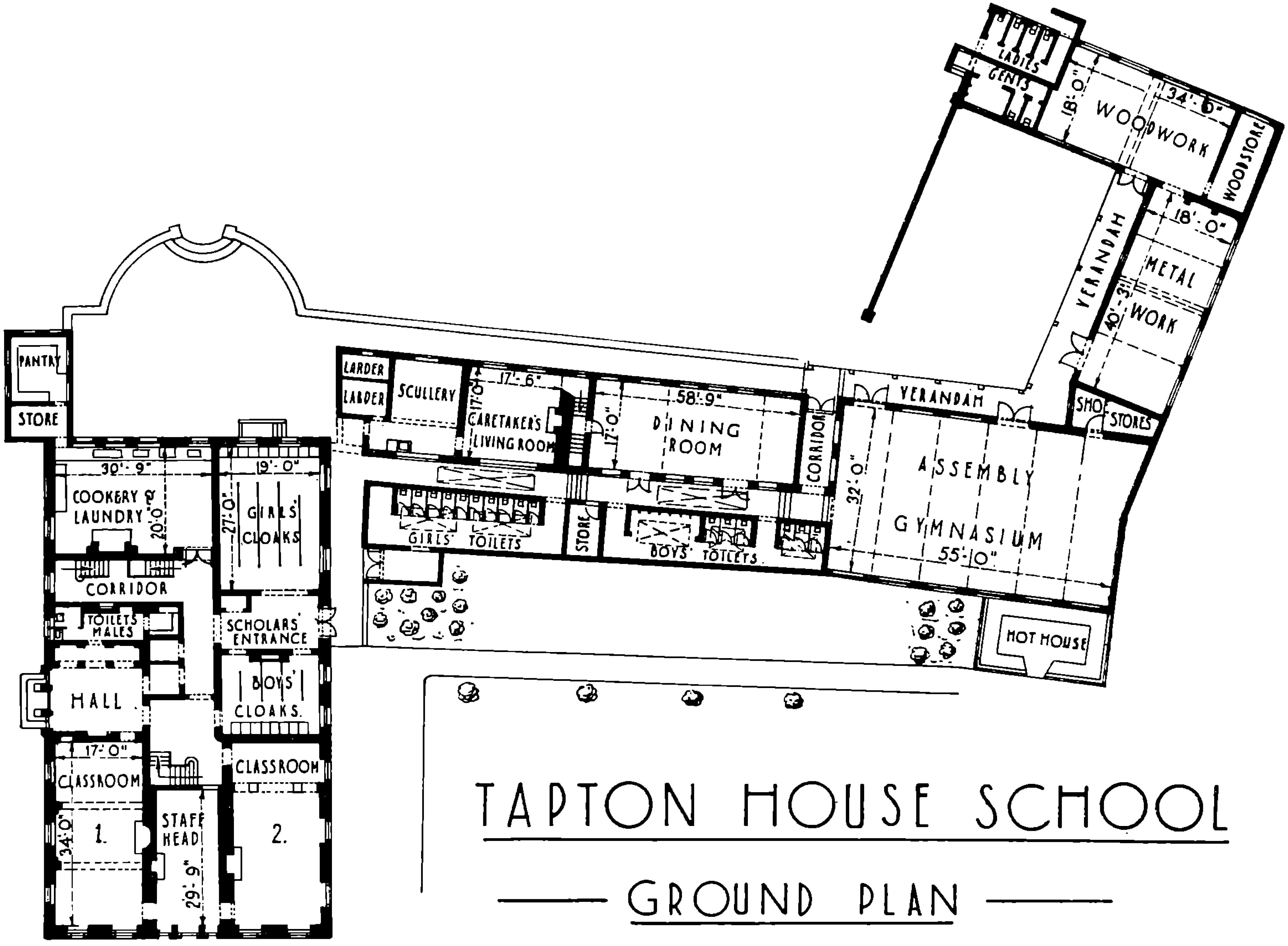
·Ground Floor·

DIAGRAM XXV



SELECTIVE CENTRAL SCHOOL (OLD MANSION HOUSE CONVERTED).

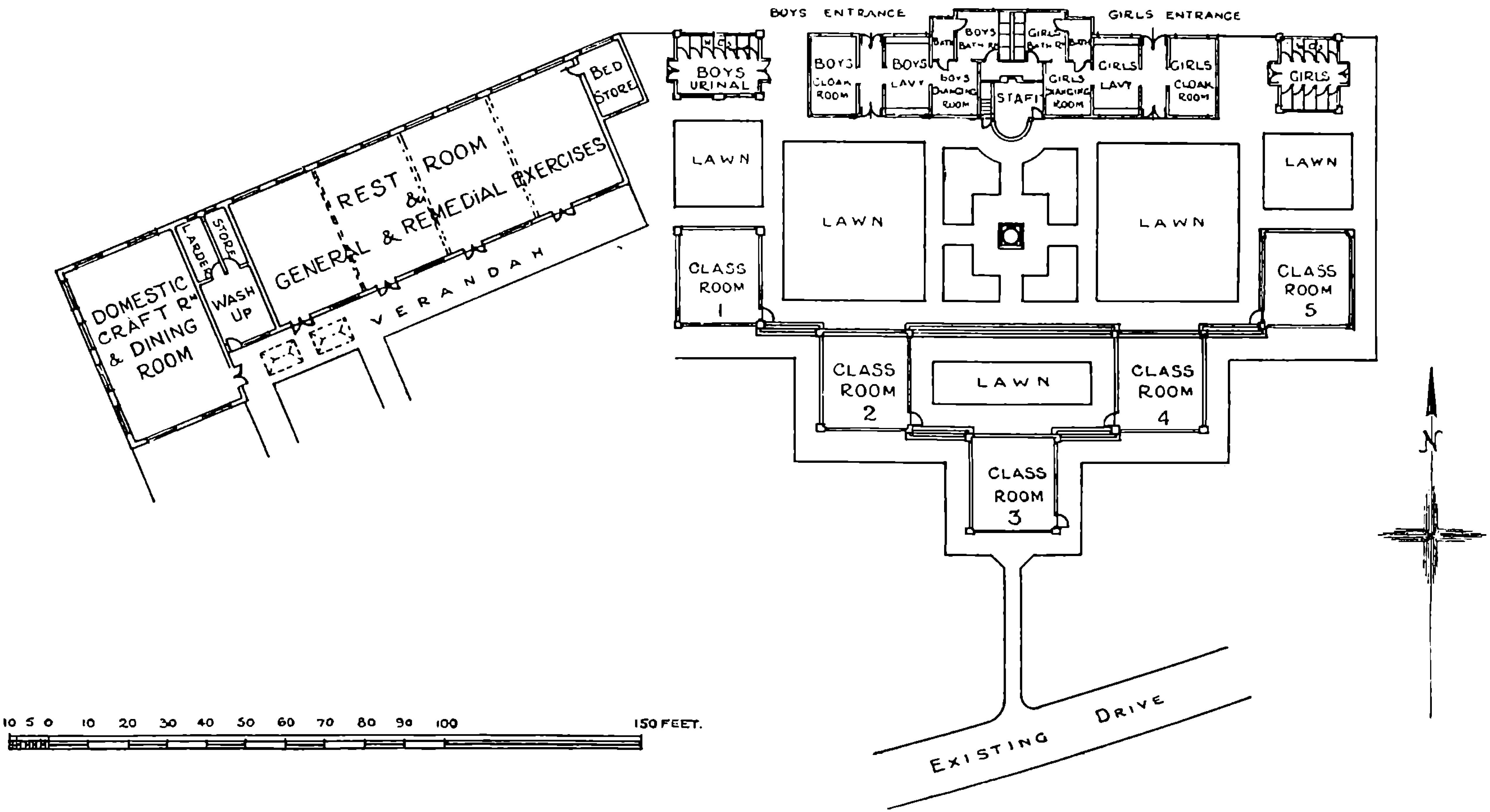
DIAGRAM XXVI



SELECTIVE CENTRAL SCHOOL (OLD MANSION HOUSE RECONSTRUCTED).

DIAGRAM XXVII

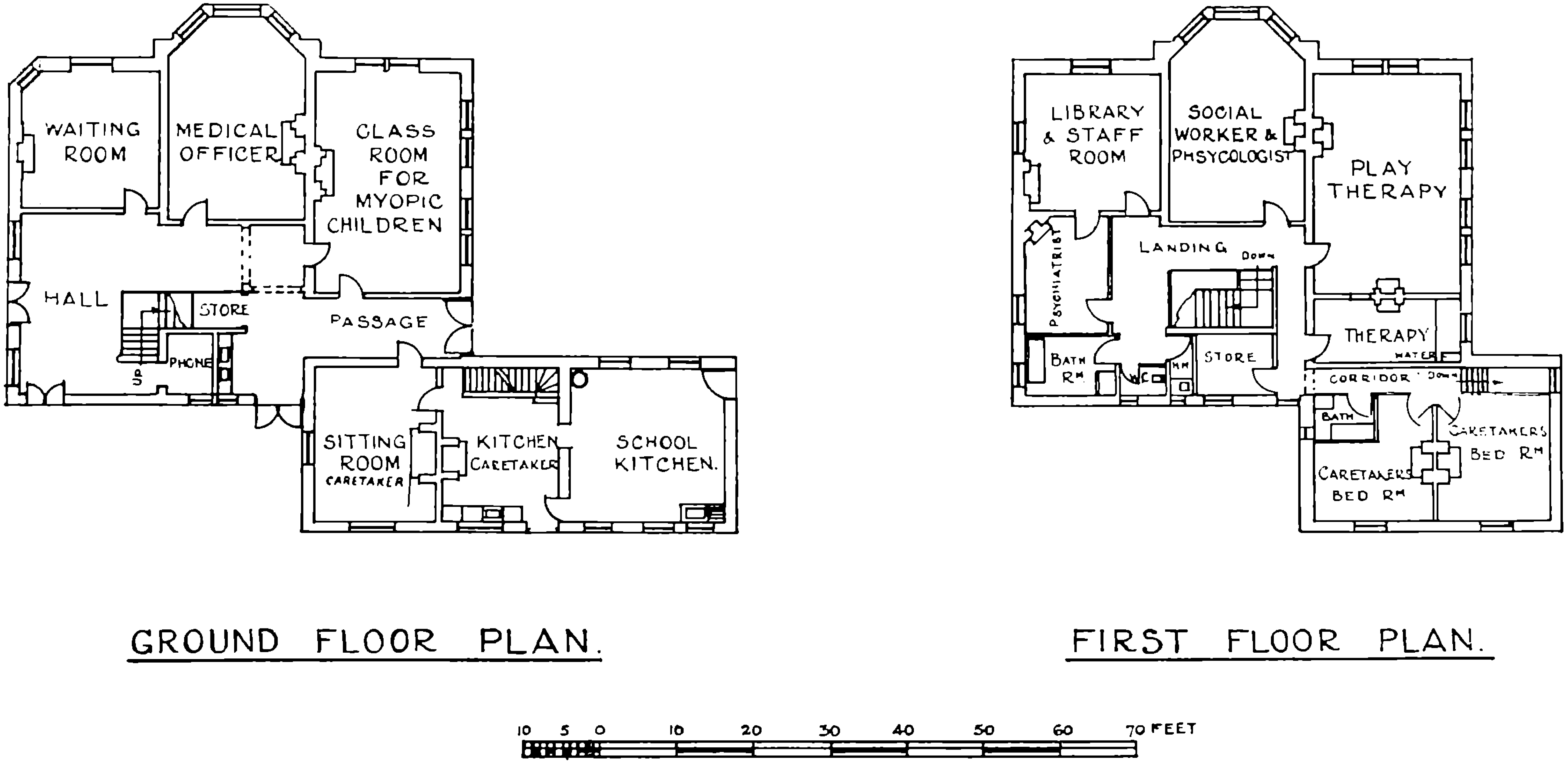
BRAMBLING HOUSE OPEN AIR SCHOOL AND CHILDREN'S CENTRE.



PLAN OF MODERN OPEN AIR SCHOOL.

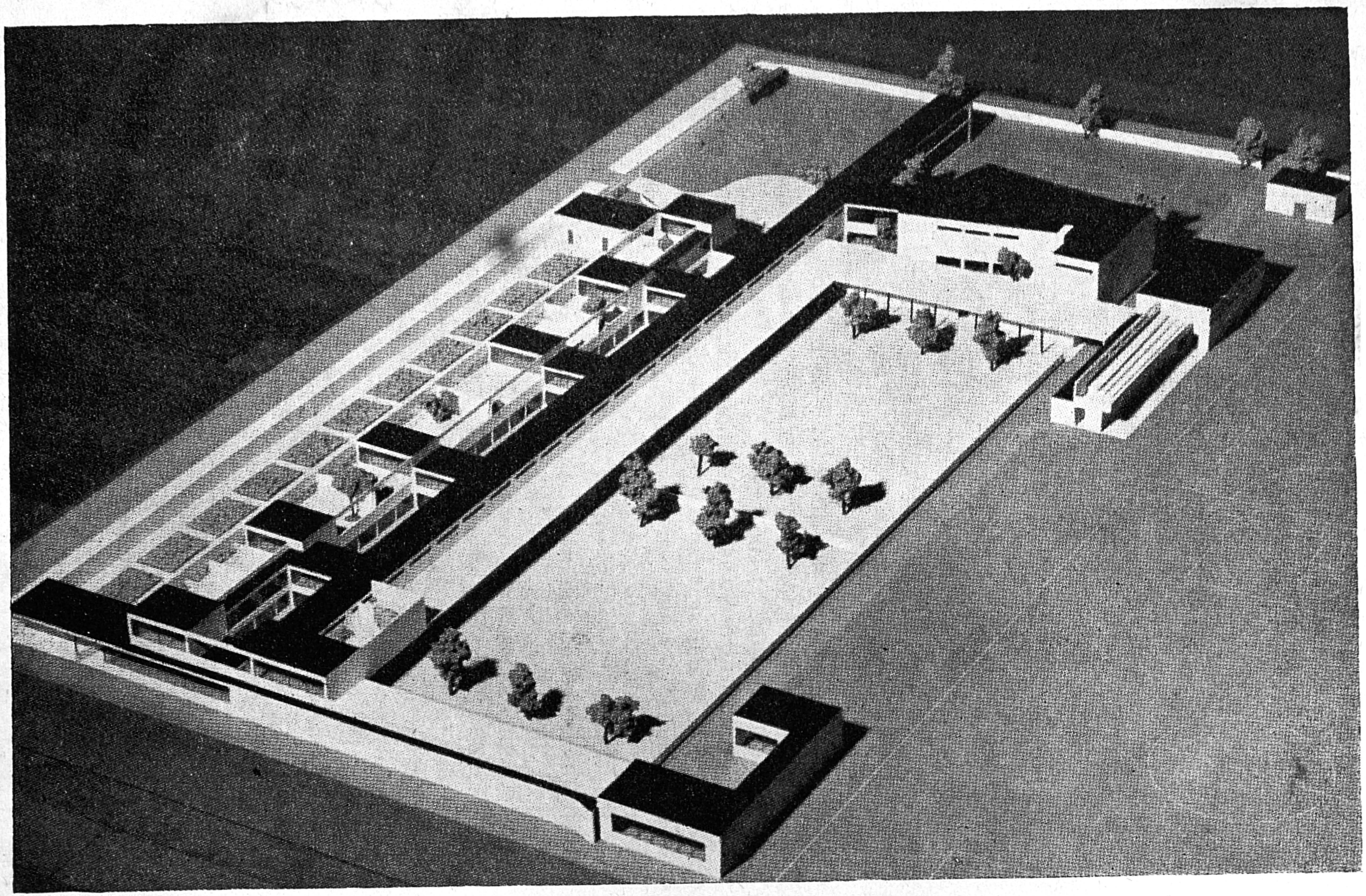
DIAGRAM XXVIII

BRAMBLING HOUSE OPEN AIR SCHOOL AND CHILDREN'S CENTRE.



Plan of Psychological Clinics.

DIAGRAM XXIX



WINNING DESIGN IN *News Chronicle* ARCHITECTS' COMPETITION.

CHAPTER VI

FURNITURE AND EQUIPMENT

IT is impossible to emphasise too strongly the fact that a change in the objectives of society as a whole involves a change in the aim of education and subsequent changes in all aspects of the educational service. It has been shown already how the type of school building has changed with the change in the aim of education from the production of a literate people to the production of a cultured and democratic one. It will be shown subsequently how the same change brought with it changes in the numbers and the qualifications of the teaching staff. It has influenced the curriculum and caused changes in it. It has caused consideration to be given to problems of discipline and school government. Perhaps in no sphere has its influence been more marked than in the equipping and furnishing of the school.

The old furniture was the symbol of immobility and conformity. Long desks, each seating ten or twelve children, all of the same height, inevitably suggested exactly similar children seated immobile in a minimum of space, working in the same way and at a similar pace. Apart from the desk, the other main articles of furniture in the old school were the teacher's desk and the blackboard. Indeed, in many cases these were the *only* articles of furniture. The equipment consisted of the reading and " sum" books, exercise books, and chalk. To visualise the equipment of a room of the old style and to compare it with that of a room of the new schools is the best method of obtaining a comparison which alone can enable the change in educational theory and practice that has been brought about in the last twenty-five years to be appreciated.

Furniture and equipment are for use in the furtherance of the educational aim of the school, and it is by this aim alone that their ability must be judged. It may be necessary to take into account questions of economy. But if economy means that essential equipment and furniture is not provided, or that that which is provided is not adequate for its purpose, then this should be admitted, and rationalisations about " the substitute being as good as the original choice " should not be indulged in. On the other hand, to provide apparatus or equipment from motives of jealousy, because someone else has it, or from motives of pride, in order to be the only one to have it, are alike unworthy of an educational

service. The criterion in every case must be whether the piece of furniture or equipment in question is necessary in order to achieve the aim of the school, and whether it is the most efficient pattern of its kind. This need to fit the tool to its purpose is being increasingly recognised, both by those who purchase the equipment and apparatus and by those who manufacture it. It is through the joint efforts of the organisers and the manufacturers that so much progress has been made in this field, and from the same co-operation grows hope for further progress in the future.

This insistence on the dependence of design upon function does not rule out aesthetic considerations, nor does it make for standardisation. There is no reason why the most useful article should be the least satisfactory aesthetically. Form and design can be joined with utility to produce satisfaction in every sphere. Insistence upon function as the overruling consideration in the design of furniture and equipment prevents overstandardisation, for it means a recognition of the fact that the aim of education remains the same throughout the community but takes different expressions where local and other circumstances necessitate this. In some school buildings certain equipment might be worse than useless. It might prevent the building being used to the limit of its possibilities by an attempt to use it beyond them. In other schools the same equipment might be an essential in order that the building can function effectively. Similarly, the actual design of the equipment may have to be varied from building to building. Standardisation reduces costs, and where it can be carried out without detriment to the function of the object standardised there is every reason in its favour. But to standardise equipment regardless of utility is to lose the substance for the shadow. Some school furniture and equipment can be standardised; the rest may demand individuality.

The whole of the furniture and equipment of a school can be divided into two sections—the fixtures and the movable furniture. The first are usually provided during the course of the building, or are subsequently added to it. The fact that they are fixtures makes it necessary that the greatest and most careful thought should be given to their design. Once they are in the building, they commonly remain, even if in use they are found to be unsatisfactory. Advice and suggestions from those who have actually used the designs suggested should always be sought. If the fixture incorporates a new idea this cannot be done, of course, but in such cases an experimental use of it before it is put into general commission will save a great deal of waste and friction.

Movable furniture demands equal thought, but the fact that it is movable makes variation of design more easy. Even so, there is no disposition to scrap apparatus and equipment just because it is not fully serviceable. Some of the old long desks far outlived their utility, but the excellence of their workmanship made for durability, and they continued to be used long after the reason for them had disappeared. This would almost seem to suggest that school furniture should not be too lasting. Here a nice balance has to be struck between two needs. In the first place the school furniture and equipment is a very prominent feature in the child's environment. If it is pleasing in design and colour, and efficient in function, he will absorb certain values regarding the desirable qualities in furniture which will do much to raise the standard of household furniture. On the other hand, it is obvious that the furniture and equipment of schools has a working life which is, and should not be, the same as its actual life—that is the whole period for which it would serve. Like men and women, some furniture is " too old at forty "; some other may remain in active commission until " sixty "; but there should certainly be a superannuation scheme for furniture as well as men. The above paragraph is not to be taken as implying that the ages appropriate to furniture are the same as those appropriate to man. For furniture they should be scaled down to at least a quarter of the numbers given. When a definite scheme for the periodical replacement of all furniture and equipment which has outlived its usefulness is in operation, design, colour, durability and function can all be taken into account in order to devise and manufacture an article which incorporates all these desirable features in a balance which results in the completely useful and pleasing article.

The object of the **Nursery School** or combined Nursery and Infant School is to stimulate healthy physical and mental development of children between the ages of two and five. This aim determines the provision of the furniture and equipment of such schools and classes. In effect, the Nursery School or Class is a large, well-conducted Nursery. But the Nursery extends beyond the four walls of the room in which the indoors work is conducted. The garden-playground is an extension of this room and needs as much thought devoted to its equipment as does the room itself. It should be a suggestive place, a place of adventure, a place asking for exploration. There should be suitable obstacles for the young explorer to surmount—mounds, hollows, and steps. A sand pit, an outside toy store, and an outdoor " gymnasium " are essential.

There should be a hard playing space and also a grass one, together with a paddling pool, and, if possible, a shower bath. There should be provision for the keeping of pets, flower beds for actual use by the children, and a bird bath. There should be trees somewhere in the area, and an open air garden workshop is a great acquisition. Other permanent equipment should be a tool shed, a perambulator store, and a miniature "house." There is no need for the latter to be at all elaborate. All that is needed is a roof and supporting walls, and a door. It should be just high enough to enable seven-year-old children to get inside it.

Inside the room the first point to be considered is the nature of the floor coverings. The Nursery School child spends a lot of his life in close contact with the floor. The three qualities of a good covering for the Nursery floor are warmth, resilience, and ease of cleaning. A good covering is cork, or some cork composition. Rubber has much to commend it. It is easier to clean than cork; on the other hand it is a more difficult surface upon which to move things about. A good quality linoleum with a semi-matt polish is cheaper than cork, and is reasonably satisfactory.

Cupboards and storage space are important. In each play-room there should be—

(*a*) Cupboards for the storage of the teacher's stock of toys and equipment.

(*b*) Long, low cupboards about 3 feet high and 15 inches deep for small toys. The shelves should vary from eight to twelve inches apart. The doors should be easily manipulated by the children, and there are many advantages in the lightly running sliding type.

(*c*) Cupboards for larger toys. These should have deeper shelves and ample floor space, should be fitted with curtains or doors, and should be accessible to the children.

(*d*) Storage for blankets and beds. Preferably this should be provided in a well-ventilated compartment adjacent to the play-room. It should be planned so that the beds can be easily taken out of doors when the weather makes this possible.

(*e*) A store for mats, overalls, dusters, and the like. This should be accessible to the children.

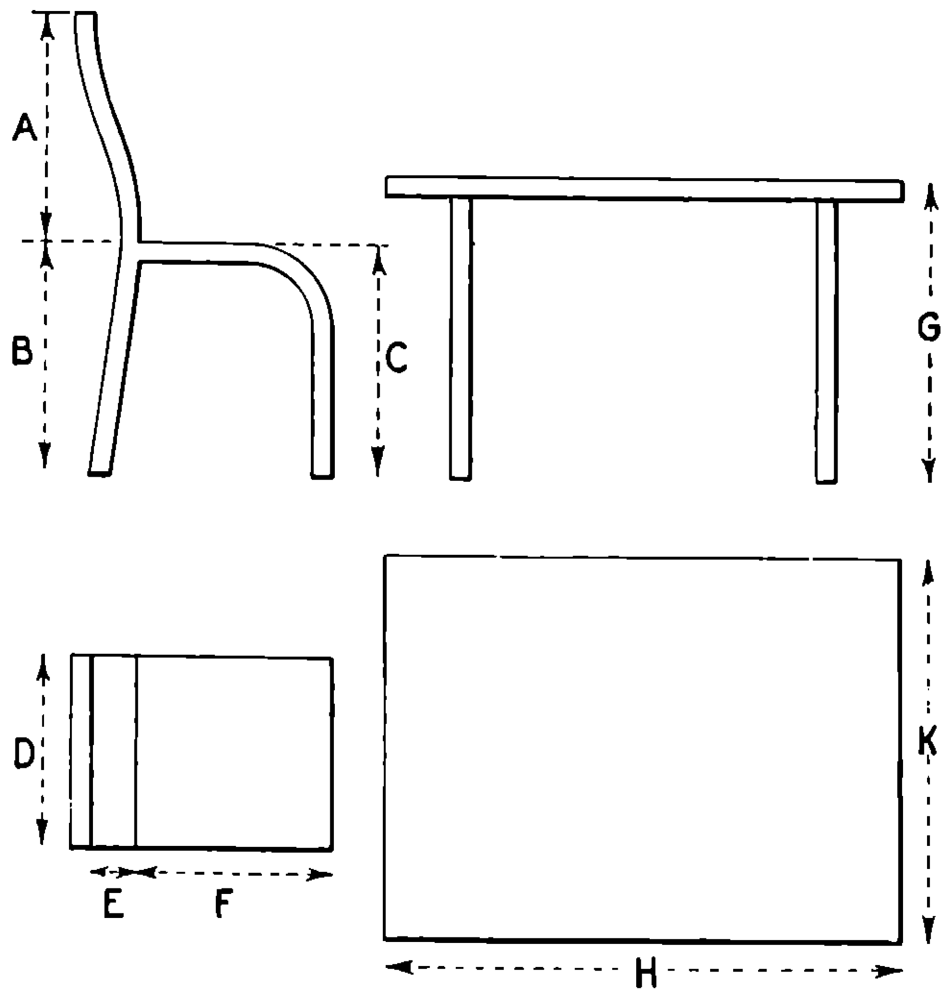
(*f*) A store for crockery to be used in the playroom. This should be additional to that used in the kitchen and again should be accessible to the children.

In the lavatories and bathroom there should be cupboards for towels, clothes, and soap, etc., together with a first aid cabinet.

In the kitchen storage is needed for groceries, cutlery, and crockery, cleaning materials, and kitchen utensils.

It is necessary that the movable furniture in a Nursery School should be able to be handled by the children, and should be capable of being easily stacked and stored. Some attractive patterns of nesting metal chairs are now on the market. These are light to handle, comfortable in use, and can be gaily cellulosed if so desired. Stretcher beds of the same type are available, although the dictates of economy often turn the balance in favour of wooden beds of which the legs fold under, thus permitting of easy storage.

DIAGRAM XXX



(*a*) For children of 2 and 3 years. A = 5 inches. B = 9½ ins. C = 10 ins. D = 9 ins. E = 1–1½ ins. F = 10 ins. G = 16 ins. H = 16 ins. K = 16–24 ins.

(*b*) For children of 3 and 4 years. A = 7¼ inches. B = 11 ins. C = 11½ ins. D = 9½ ins. E = 1½ ins. F = 11 ins. G = 18 ins. H = 18 ins. K = 24 ins.

(*c*) For children of 5 to 7 years. A = 9 inches. B = 12 ins. C = 12½ ins. D = 11 ins. E = 1½ ins. F = 12 ins. G = 19½ ins. H = variable. K = variable. (commonly 20 ins. by 18 ins.).

The diagram indicates the varying heights of the tables and chairs. The tables should be of the square nesting type, each large enough to seat four children, although there should always be a few for one child alone. The backs of the chairs should not be semicircular, since these restrict movement.

The young child will use any object within reach as the raw material for imaginative games. The acid test for the equipment of a Nursery School is not its cost or its elaborateness, but whether it will stimulate the child's imagination. Simple toys will do this where more elaborate ones may not. Nor is it always necessary to purchase ready-made articles. If the raw material is provided, there is much that can be made by the modern Boys' and Girls' School, and such a course serves a dual purpose. It makes possible variations in the standard design where local conditions and experience render this desirable, and it also furnishes the modern school with projects which have a genuine community purpose.

The method in use in the school will determine the nature of the play material required. In some cases a scientifically designed range of play material covering the whole age range of the school in successive stages is employed. This will be so where, for example, the Montessori method is followed. Such apparatus demands carefully planned storage space. In other cases the play material is not so deliberately designed age by age. In both cases it must be stimulative.

Other equipment which should be provided for Nursery Schools includes—

(*a*) *Swings.* There should be one for each group of children, and they should be movable and able to be erected either indoors or outdoors as circumstances demand.

(*b*) *Climbing ropes.* One for every two groups will probably suffice. These again should be able to be erected indoors or outdoors.

(*c*) *Balancing board or see-saw.* These should be fixed out-of-doors where there is plenty of space available.

(*d*) *Slide.* This can either be movable or fixed. A good movable slide can be made in the craft room of any Senior School. The fixed type should be built in to the younger children's play-room.

(*e*) *Rings.* There should be one for every two groups, and they can be either indoors or outdoors.

(*f*) *Blocks for building.* These should be large, light, and hollow, and suitable for building houses which can actually be occupied by the children. The different sizes can be "nested."

(*g*) *Blackboards.* These should be fixed low on the wall, and should be at least 4 feet 6 inches in length. The children should be able to sit on the ground and draw on the board.

(*h*) *Poster board.* This is best made of cork or felt.

(*i*) *Musical instruments.* A good piano is essential, and preferably there should be one for every three groups of children. A number of the more simple percussion instruments is a valuable addition. All musical instruments should be of good quality.

The Nursery School kitchen should be easy of access from all the playrooms, for it is in the latter that the meals are taken. The essential equipment of the kitchen is—

(*a*) Large steam cooker. (*b*) Steam kettle for fish.

(*c*) Additional heating rings. (*d*) Double sink.

(*e*) Refrigerator for storage of milk, butter, etc.

(*f*) Dry goods store.

(*g*) China and crockery store. This should be easily accessible to the children when required.

(*h*) Good sized work table. (*i*) Some light dinner trolleys.

(*j*) Service counter. This should be low enough for the children to collect and return the plates.

The Medical Inspection room is best placed near the entrance of the school. The necessary equipment is—

(*a*) A small couch. (*b*) A writing desk.

(*c*) A filing cabinet. (*d*) A medical cabinet.

In the bathroom adjoining the Medical Inspection room there should be a weighing machine and a sink.

The equipment described is that which is required also in the Infants' School. The desks, tables, blackboards, storage space, and physical apparatus are all to be found in the best Infants' Schools. The kitchen is omitted if it is purely an Infants' School, but a canteen with a kitchenette attached where milk and drinks can be heated and served is most desirable. The older children (*i.e.* those from 5-7) should have individual lockers provided in which such things as writing books, drawing pads, paint boxes, etc., can be kept.

The **Junior School** has to continue the work carried out in the Nursery-Infant School. Physically the children have to be developed, but not forced, in order that they may not only have present good health, but also in order that they may be prepared to meet the strain of adolescent years. All-round mental development has to be fostered, and a narrow book-learning focused on the transfer examination at 11 plus has to be avoided. The social sense and the imagination have to be fostered through co-operative activities and other pursuits.

Every Junior School should have a Hall. When this is not provided it should be possible to throw two classrooms into one to act as a substitute. A stage is essential, and a movable screen should be provided at the stage end. At the other end there should be a power plug for the lantern and a 16 mm. projector. A means of easily darkening the windows should be provided.

Apart from the usual gymnastic equipment, which in a Junior School is mainly of the lighter type, the following furniture should be provided:—

(*a*) *Chairs.* These should be of three sizes—13 inches high, 14 inches high, and of full adult size. They should be of the folding type, and storage for them under the stage can often be provided.

(*b*) *Piano.* This should be of good quality.

(*c*) *Radio.* For the school broadcasts and items of general interest.

(*d*) *Cinema projector.* This should be of the 16 mm. type.

(*e*) *Lantern or Epidiascope.* Preferably the latter. (A description of a folding screen for daylight projection will be found in the section upon the equipment of a Senior School.)

The classrooms in a Junior School are usually made to accommodate about 45 pupils. In each Junior School there should be one or two rooms which are larger than the ordinary classroom and which can be used for craft rooms. These should be fitted up in such a manner that in them can be carried on what the Board of Education has termed "adventures in Elementary crafts." In other words, in them provision must be made for the children to do simple joinery, needlework, modelling, and drawing. There should be in each of these rooms a sink with hot and cold water, a gas point or two, and two benches preferably of different heights and of greater solidity than the usual writing table. These should be 6 feet to 8 feet long.

The question of the type of desk and seat provided in the classrooms of Junior Schools is bound up with the question of storage of the children's personal material and equipment. Commonly the desk is also the store, and the convenience and economy of this arrangement is allowed to outweigh other considerations. There are two systems in common use:

(*a*) Locker desks or tables fitted with drawers or lockers. This system is suitable only so long as each class is taught all subjects in the same room. But it is more common now to find each classroom in the school (and more particularly in modern Senior Schools) allocated to the teaching of one subject and equipped accordingly.

If the children have their lockers in a certain room and then have to move round from room to room time is taken up in returning to the room which has the lockers, and another class is disturbed.

(*b*) Lockers are provided somewhere apart from the desks. Alternatives are:

(1) Lockers in or adjacent to the cloakroom. The objection to this is that it causes congestion.

(2) Lockers in classroom. There are the same objections to this as to (*a*) above.

(3) Lockers either in the corridors or in bays in the corridors. This is a satisfactory system if the corridors are wide enough to allow of this and not cause the free circulation of the pupils to be impeded.

The ideal solution would be to have the lockers in a kind of ante-room to the classroom. The solution of the problem is bound up with the whole question of the type of building devised to meet current conceptions of education. As education becomes concerned more with individuals and their interests and is based less on mass instruction, so must more storage space and free access to it be provided.

The heights of the chairs and tables provided are as below, the letter references being to the Diagram XXX. If desks are used the appropriate measurements are the same.

(*a*) *For children of* 7 *and* 8 *years.*

A = 12 inches plus.	B = 14 inches.	C = 14½ inches.
D = 11 inches.	E = 1 inch.	F = 11-12 inches.
G = 25 inches.	H = 16 inches plus.	K = 22 inches.

(*b*) *For children of* 9 *and* 10 *years.*

A = 13 inches plus.	B = 15 inches.	C = 15½ inches.
D = 12 inches.	E = 1½ inches.	F = 12 inches.
G = 26½ inches.	H = 18 inches plus.	K = 24 inches.

(*c*) *For children of* 11 *and* 12 *years.*

A = 14 inches plus.	B = 16 inches.	C = 16½ inches.
D = 12 inches.	E = 1½ inches.	F = 12-13 inches.
G = 29-30 inches.	H = 18 inches plus.	K = 24 inches.

It is in the modern Senior School that the greatest revolution has been effected in the field of equipment and furniture. It is true that these schools only became common subsequent to the issue of the first Hadow Report in 1927, but they cater for the same

group of pupils as were found under the old regime in the top classes of the all-age school. The change is due, and this relationship cannot be stressed too often or too strongly, to a change in the conception of what constitutes a suitable education for the adolescent child. The benefit of this changed conception will not be fully realised until the raising of the school leaving age makes it possible for all adolescents to have a four or five year course in these new schools.

The new outlook has been described in many ways. Briefly it is based upon the fact that each child is an individual, and that his growth depends upon the stimulation of his interests, and that learning and doing go hand in hand. The interest which drives to action is the practical approach to wisdom, and is often more effective than knowledge gained through a purely academic approach. It has to be remembered, however, that virtue does not reside in a mere change of subjects. To substitute woodwork or some other practical subject in the curriculum for grammar may mean no real change. The " two P's " (*P*hysical Training and *P*ractical activities) may be as deadly to interest as the old " three R's " often were. On the other hand, arithmetic and English can both be approached from the practical side, and may thus be more in keeping with modern thought than some practical work, particularly when the latter consists of a repetition of standardised patterns. It is the technique of approach that is significant for the child. Number and language can be taught in the new way as well as in the old. So can all practical activities.

One other factor which affects the question of the provision of furniture and equipment of the modern Senior Schools is the growing disposition so to plan these schools that they serve as community centres as well as schools. Frequently they are erected at some central point of some new housing estate on the outskirts of large cities. In the rural areas one such school may be centrally situated so as to serve a number of villages. In both cases—in the town and in the country—there is an urgent need for some building in which the communal life of the new estate, or the village, can be centred. The new schools can serve this function, and are being increasingly planned to do so. It means provision for adult activities—music, the drama, meetings, clubs, and societies. When this aim is achieved the school becomes what it should be—a focus and an expression of the culture of the community it serves.

The main furniture of the classroom of a Senior School consists of the chairs and tables, or desks. The same remarks made with regard to Junior Schools concerning storage space for the child's

individual apparatus apply here. The dimensions of the seats and tables required for children of 11 and 12 have already been given. Referring to the original diagram, the dimensions of those required for children of 13 years of age and upwards are—

A = 15 inches plus.	B = 16 inches.	C = $16\frac{1}{2}$ inches.
D = 13 inches.	E = $1\frac{1}{2}$ inches.	F = 12-13 inches.
G = 29-30 inches.	H = 18 inches plus.	K = 24 inches.

The desks should be as light as possible consistent with sound construction. The teacher's desk should also be light and movable. Cupboard space should be provided in the walls either under or on either side of the blackboard. The latter should extend almost along the entire width of the room. There seems sound reason to anticipate that the days of a *black* board upon which the teacher writes with *white* chalk are numbered. There is evidence to show that a yellow board and the use of blue chalk causes much less eye strain.

Any room to be used as a light craft room should be fitted with two sinks of the ordinary household type, and gas and electricity points should be provided. There should be individual tables, one for each child, and essential here is adequate surface space. The tops should be adjustable—able to be flat or sloping at various angles. A long " communal " rigid bench (under which cupboards can be fitted) is an asset.

The equipment of the *geography room* demands careful attention. It should have the usual classroom equipment, and in addition there should be—

(*a*) A map tracing table.

(*b*) A sand table—with a tray approximately 5 ft. 6 in. × 2 ft. 6 in. This should be fitted with a cover to form a table top.

(*c*) Maps as required.

(*d*) Lantern and screen, and, if possible, a 16 mm. projector.

(*e*) A loud speaker—branched from the wireless in the central hall.

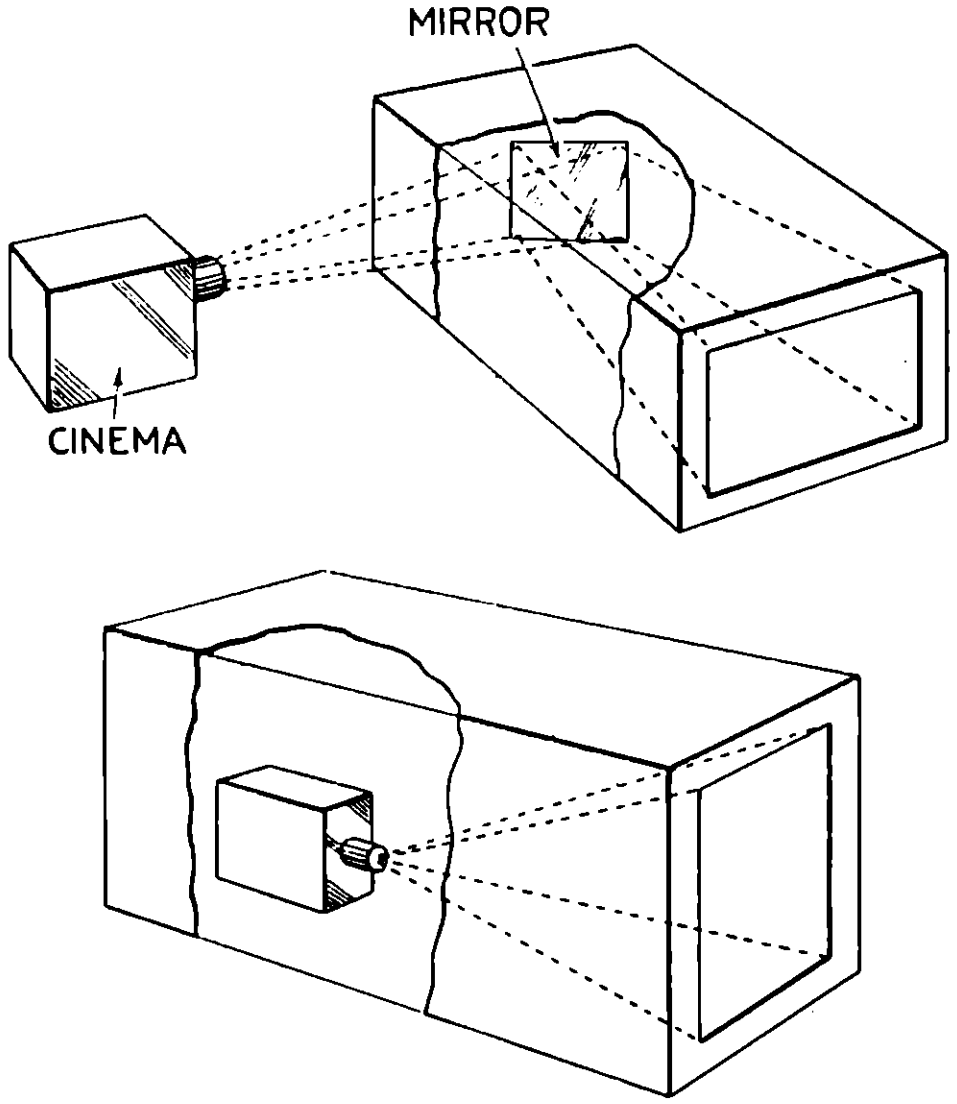
(*f*) Frames or pin-rails for large-scale biographical photographs, travel posters, etc.

(*g*) Shelves.

In view of the increasing importance of films, both silent and sound, in modern geography teaching, the provision of a lantern, an epidiascope, and a projector in the geography room is essential,

and the difficulty of " blacking out " arises. Details of a screen which can be used for daylight projection follow (see Diagrams XXXI and XXXII). The great advantage of this piece of equipment is that when not in use it folds flat against the wall. It takes only a moment or two to set up, and can be constructed for well under £1 in any craft room.

DIAGRAM XXXI



Screen for Daylight Projection.

NOTES ON THE SCREEN (DIAGRAMS XXXI, XXXII).

(1) *With the cinematograph.* The use of a thin mirror is necessary to correct for lateral inversion.

(2) *With the lantern, episcope or film strip projector.* (If the episcope is fitted with a mirror it must be used in the same way as the cinematograph.) In the cases of the lantern and film strip projector the slide or film is reversed to correct for lateral inversion and the mirror dispensed with. The beam is shone directly on to the back of the screen.

(3) *Materials.*

Wood for Framework.
55 in. × 1¼ in. × 1¼ in. or near.
1 @ 32 in. × 8 in. × 1¼ in
1 @ 24 in. × 3¾ in. × 1¼ in.

Table brackets. Mild steel 2 @ 5¼ in. × 1 in. × ⅛ in.
Hinges (if used). 8 pairs steel butt hinges.
Screws. 96 @ 1 in. × No. 8 countersunk.

Plywood.

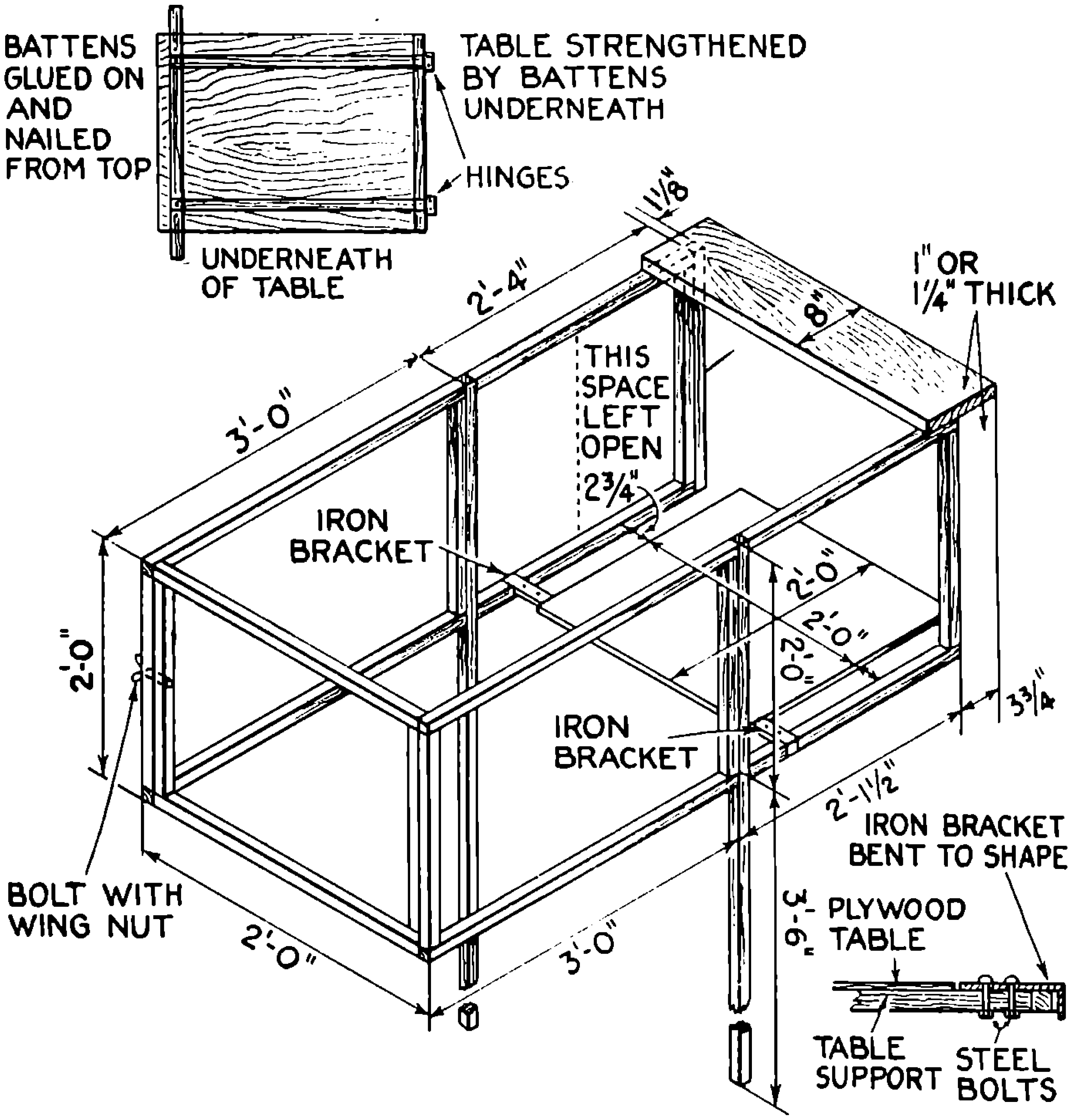
1 @ 24 in. × 24 in. × $\frac{3}{16}$ in.—Table.
1 @ 36 in. × 32 in. × $\frac{1}{8}$ in.—Roof.
1 @ 32 in. × 28 in. × $\frac{1}{8}$ in.—Roof.

Roundhead steel bolts. 4 @ $1\frac{1}{4}$ in. × $\frac{1}{4}$ in. 1 @ 3 in. × $\frac{1}{4}$ in. fitted with wing nut.

Engineer's detail paper 36 in. × 30 in.

(4) The screen itself should be well stretched and glued all round. It can then be slightly and evenly damped and allowed to dry. When dry it will be found to be perfectly tight.

DIAGRAM XXXII



SCREEN FOR DAYLIGHT PROJECTION.

The *art room* furniture should be light and easily movable. Chairs with sloping backs are in general use, and the tables or desks should have adjustable tops. There should be a long rigid bench under one range of windows at which craft and modelling work can be done. This should have a hard wood top, and underneath it shelves should be fitted. There should be two sinks and at least two solid movable benches. On the walls should be slotted fixtures

which will hold standard frames and mounts. A blackboard (or one of the newer yellow ones) is necessary for demonstration purposes.

The *science room* is usually a " general utility " room—used for all branches of science. The ideal provision would be two laboratories, one for the physical sciences and one for the biological sciences. Some schools have this provision made, but most modern schools have to be content with one well-equipped laboratory. In some cases the science work has to be done in the craft room, while in some schools no definite provision is yet made for science.

The furniture required should be simple in design but adequate to its purpose. The main items are—

(*a*) Demonstration bench and teacher's platform. The bench should be 2 ft. 9 in. high, and the dimensions of the top should be 8 ft. by 2 ft. 6 in. At either end there should be flaps fitted whereby the length can be increased to about 12 ft. A sink should be fitted at one end, and there should be at least two electric power points and two gas points. Shelves and cupboards should be fitted on the teacher's side, and cupboards only on the children's side. The platform should be about 6 in. high.

(*b*) The blackboard should be behind the teacher's desk, and should be 12 ft. by 4 ft. Cupboards should be fitted round it.

(*c*) Lantern—best movable.

(*d*) Benches. Here there is a difference of opinion. Some teachers prefer the solid type of bench with gas points on each scholar's portion and sinks between each four places, and electric power points at intervals, while others prefer the ordinary good firm table fitted with drawers. The advantage lies in the greater freedom of the latter arrangement, while supervision is also easier. If tables are used the tops should be of a well-seasoned hard wood. Double benches, for two pupils, should be 5 ft. long, 3 ft. 6 in. wide, and 2 ft. 9 in. high. Single benches need only be 2 ft. wide.

(*e*) A woodwork and metalwork bench. This is most useful for the carrying out of repairs, and these are often required to be done immediately and on the spot. It should be equipped with wood and metal vices, and a rack of tools.

(*f*) Two sinks. One can be of the household type, while the other should be made of white glazed ware and be 12 in. square and 8 in. deep.

The size of the *handicraft room* varies with the size of the school. In the smaller schools it is usual to find a combined woodwork and metalwork room which accommodates 20 pupils, *i.e.* half a normal class. In larger schools there will be found either a combined room to take 40 pupils or two rooms—one for woodwork and one for metalwork—each capable of taking 20 pupils. The equipment of the handicraft room or rooms depends much upon the actual type of craft work which is to be carried out in the school. The essential equipment is—

(*a*) Benches. These should be of the double type, and should be 5 ft. long by 2 ft. 6 in. wide, and vary in height from 2 ft. 4 in. to 2 ft. 6 in. A continuous bench down one side of the room is an advantage.

(*b*) The Board of Education suggests as the machinery which should be provided for metalwork, the following:—

(1) One or two motorised back geared screw-cutting lathes.
(2) One electric drilling machine.
(3) One or two bench hand drill machines.
(4) One power grinder.

In addition a power driven wood turning lathe is suggested.

The following is the actual machinery installed in a Senior Boys' School which has a handicraft room for 40 boys. The school is in an industrial area and is near to two large engineering works. It is not a vocational school by any means, but the locality has definitely influenced its development.

Right-Hand Wall.

45 feet of shafting carrying 12 pulleys turned by 5 horse-power induction 3 phase motor (1430 revs.) reduced 4 : 1.

Metalwork Section Machinery.

1 3-inch Union back geared screw cutting lathe (Countershaft): 1 Emery Twin grinder: 1 3½-inch Drummond back geared screw cutting lathe (Countershaft): 1 Drilling Machine taking ⅜ inch: 1 6-inch Master back geared screw cutting lathe (Countershaft).

Forge.

1 Hearth: 1 Electric blower—3 phase: 2 Anvils—tongs, hammer sets, etc.

Wood Section Machinery.

1 Wizard light wood turning lathe (motor driven): 1 Wood lathe taking up to 3 feet in length (Countershaft): 1 Sanding belt (shop constructed) taking 4-inch belt: 1 10-inch Band saw: 1 12-inch Circular saw.

Left-Hand Wall.

45 feet of shafting with pulleys turned by 3 horse-power motor 3 phase (1450 revs.) reduced 4 : 1.

Metalwork Section Machinery.

1 Twin buffing wheel and grinder: 1 Mechanical hack saw: 1 Drilling machine: 1 Hand shearer: 1 Small shaper: 1 Small 3-inch back geared screw cutting lathe for precision work (Countershaft): 1 Blow pipe and bellows.

Wood Section Machinery.

1 Fret machine: 1 Light table moulding machine: 1 Light Wizard wood lathe (Countershaft): 1 Sanding disc (shop constructed): 1 Grindstone driven with shaft: 2 Bench drilling machines: 2 Hand operated wood trimmers.

The metalwork end contains 7 twin benches each fitted with two 3½-inch metal vices, one small anvil, necessary small files, pliers, hacksaw, small shears, and hammers. Turning tools, large files, drills, soldering irons, etc., are kept in tool drawers and cupboards.

The wood work end contains 10 twin benches each fitted with two wood vices, cupboards with rack containing tenon saw, ¼-inch, ½-inch, ¾-inch, 1-inch chisels, square, gauge, hammer, mallet, and jack-plane. Try planes and iron smooth planes, spokeshaves, Stanley "45's," hand saws, gouges, bow-saws, paring chisels, etc., to hand in tool cupboards.

Corresponding to the handicraft room in the Boys' Schools is the *housecraft room* in the Girls' Schools. Recent years have seen the instruction in housecraft undergo a radical change. From being instructed in the elements of simple cookery and laundry it has widened its scope to deal with the whole question of home making, including dietetics, hygiene, and furnishing. The change is well illustrated by the fact that there is a tendency to make a flat or an actual house part of the accommodation provided for the teaching of housecraft. It is usual for the housecraft room to be so equipped that gas, coal, and electricity can all be used. The minimum equipment that should be provided is—

(*a*) A coal range. This should have two ovens and a hot-water cylinder.

(*b*) Gas stove and electric stove. The proportion of gas cookers to electric ones should be decided upon after a careful consideration of the provision in the area as a whole which the school serves.

(*c*) Domestic boiler of capacity 12 gallons. This can be gas or electrically heated.

(*d*) Two sinks (with draining boards), 3 ft. × 1 ft. × 10 in. Hot and cold water laid on.

(*e*) Refrigerator. (*f*) Electric irons.

(*g*) Gas or flat irons. (*h*) Two ironing tables.

(*i*) Tables. These should be movable and should measure at least 5 ft. 6 in. × 2 ft. 6 in. They should be fitted with drawers to take the equipment necessary for the general work of each girl.

(*j*) Seats. Stools are preferable, and should be provided of differing heights.

(*k*) Board. This should be 6 ft. × 3 ft., and fixed where most convenient.

(*l*) A small bookcase.

The utensils provided should be durable and of good design, and adequate to their purpose. The selection of proper utensils is an important part of housecraft training, as is also the planning of the meals and the purchasing of the necessary ingredients for the various dishes.

The *gymnasium* has often to serve as an assembly hall, but in the most modern schools both are provided. The fixed equipment of the gymnasium must be carefully considered when the building is in progress. The principal fixed equipment consists of wall bars, beams, climbing ropes, window ladders, hooks for mats when not in use, shelves for beam saddles, etc. If the hall is to be used for assembly purposes chairs have to be provided, and storage room for them when the hall is in use as a gymnasium. The chairs should be provided in two sizes—1 ft. 4 in. high and 1 ft. 5 in. high. They can be either of the nesting type or folding chairs in groups of four or six.

It is impossible to do more than indicate the kind of equipment which is now being provided for schools. The essential things for the organiser of any school to bear in mind are the aim of the school, the age of the scholars, and the teaching technique to be employed. These considerations will do much to decide the kind of furniture and equipment required. Furniture and equipment is for use in the service of a purpose, and should always be selected with this in mind.

CHAPTER VII

THE STAFF OF THE SCHOOL

SCHOOLS are the institutions through which any society conducts the formal education of its children. The children also get a less formal education through their home life and in voluntary organisations to which they belong. During school hours the children are under the control of their teachers; at other times the direct or indirect control of their parents.

A changed conception of education implies of necessity a changed view of what constitutes an adequate staff of a school, and also of the functions of the staff. So long as the main objective was to produce a literate people, *i.e.* to teach the tools of education—ability to read, to write, and to perform routine calculations, mass methods could be employed. Classes could be large, discipline was perforce rigid, and repetition and practice the main features of the technique employed. When the educational objective became wider, and the aim was the production of educated citizens, a new state of affairs came into being. More individual work necessitated smaller classes, the development of various activities and of freer methods carried with it the need for a less rigid form of discipline, and the learning aspect of the educational process began to receive as much attention as the teaching one had done in earlier days.

There are many factors that must be taken into account when the staffing of a school is under consideration. The first and most obvious factor is the number of children in attendance at the school. Given this, and the size of the class unit, and many people imagine that no further data is necessary in order to determine the size of the staff. If the school has 160 children on the books, and the size of the class unit is 40 children, then it needs a staff of four plus the Head Teacher. The simplicity of the calculation and its ease of application makes this method appeal to many. But in practice difficulties soon arise. The children may not be so easily divisible into an exact number of class units. The total number at the school may not contain an even number of such units. The number of teaching spaces is bound to affect the effective number of teachers on the staff. Simple division may give a rough guide to the strength of the staff, but it can do nothing more.

The second factor which is operative is the number of teaching spaces available. If there are six teaching spaces, not more than

six or seven teachers can be usefully employed. Less will be needed if there is surplus accommodation. But if the accommodation is over-taxed the maximum number of teaching spaces still determines the size of the staff, although the practice of providing at least one teacher above the number of teaching spaces available is becoming increasingly common. This teacher, a floating teacher, can be used in a variety of ways, but perhaps chiefly in giving relief to the remainder of the staff. Increased individual work inevitably means increased individual corrections to be made. It means, too, an increased number of individual explanations to be made and help to be given. There are those who seem to imagine that the progressive reduction in the size of the classes which has taken place in the last thirty years means easier work for the members of the staff. It would have meant this had there been no change in technique. But the teacher who is doing good work with a class of thirty-five under modern conditions will have to work just as hard as did the teacher with a class of sixty under the old conditions. But the two tasks are so different that they cannot fairly be compared. The teacher of the old school found ability to maintain external discipline and to concentrate on a limited field his chief assets. His colleague of the newer school finds power to stimulate and direct all-important, and his range is only limited by the range of children's interests.

The type of school is a third factor which demands attention, and one about which differences of opinion exist. It is commonly argued that classes in the new Senior (Modern) Schools should have a maximum of 40 pupils, but in Junior Schools the number should be 45 per class, and in Infants up to a maximum of 50. The Board of Education has recently conducted a campaign aimed at abolishing all classes of more than 50, and a big reduction in the size of such classes has been the result. There seems to be an acceptance of the position that classes for Infants should be greater than those for Seniors, although the grounds for this are not so explicitly stated. For the Nursery Class the numbers are 25-30, and again it seems hardly logical to have classes of this size for children below 5 years of age and to increase them to 50 for children above 5 years.

Tradition plays a large part in this matter of size of classes. There has been an insistent demand for the reduction in size, but little careful examination of the basic problem of what constitutes the most suitable unit for class teaching at different ages. It may well be that at different ages different sized groups are most effective. And in addition to the question of size there is the question of calibre. It has been taken for granted too readily that

the nearer the children are together in mental ability the better class they make. Whether this is so or not depends upon the purpose for which the class is assembled. If this purpose is training in skills or the techniques it is probably true that uniformity is desirable. But if the class is engaged in any joint activity, then there is some ground for assuming that variation in ability and even in age may be needed. After all, the child becomes a citizen of a community composed of people of various talents. From membership of a class of pupils of his own age and ability, he may get such a false view of himself in relation to his fellows as will affect all his relationships with others in later life. The old conception of education would have benefited by the grading of pupils which is now current. Not sufficient thought has been devoted to the question as to whether the new one does. In this connection it should be remembered that the group tests of intelligence, now so widely used for the purpose of grading pupils, were first applied on a large scale in order to facilitate the training of the American army in the last war, by making it possible to form units capable of learning their task at a uniform rate. In other words, the tests facilitated the learning of a technique. It is an assumption, still requiring proof, that the same process is always desirable in other spheres.

It is usually assumed that a maximum of 40 pupils makes a good class unit in the modern Senior School. For practical subjects, woodwork, metalwork, craft work, science, art, and domestic science, the Board of Education lays down that there should be one teacher for twenty children. Where practical work rooms are built to accommodate 40 pupils there should be two instructors. Another factor which affects both the numbers and the qualifications of the staff of schools is the degree to which there is specialisation in the work of the teachers. Under the old regime each member of the staff was a class teacher—responsible for all the subjects in his class and teaching it all the hours the school was open. The establishment of the new modern Senior Schools has led to a rapid change in the majority of schools for older pupils. Following the practice of existing Secondary Schools, it is now customary for each member of the staff to be responsible for certain subjects, and to teach those subjects to a number of classes. In some cases this movement is spreading to the Junior Schools.

There is something to be said on both sides. From some points of view the "general practitioner" is to be desired; from others there is much in favour of the "specialist." This question is one which cannot be regarded as settled—it still requires much thought

and carefully planned experiment and observation. At what age should specialisation begin, if at all? Is specialisation desirable in some subjects but not in others? Is it worth while with children of certain mental calibre but not so profitable with others? These and a number of other questions demand the careful consideration of those interested in the organisation of education. If educational organisation is viewed merely as an exercise in organisation, their solution has only an academic interest. If it is considered as a means of fulfilling the purpose of effectively educating the children of the community, the solution is a pressing and practical need. Two causes which tend to influence the spread of specialisation, but which are not really relevant to the issues involved, are the fact that specialisation is the rule in existing Secondary Schools, and that University students specialise during their academic courses. Imitation may be a sincere form of flattery, but it is not a logical argument. There has been a tendency for the new Modern Schools to take over, sometimes uncritically, certain features of the older Secondary Schools—specialisation, the prefect system, school uniforms, and so on. Some of these may be of value; some of relative value; others may only be desirable for children of certain age groups. The point is that the reason for their adoption should be rooted in the needs of the children concerned and not in either prestige or tradition.

The student who has specialised in some branch of study in which he or she has a real interest will obviously prefer to teach that subject or allied subjects. This may be desirable in the interest of both the teacher and the pupils, but again it is the interests of the pupils that must be the determining factor.

The general practitioner has the advantage that he knows his pupils from many points of view. As Sir John Adams used to point out, before the assertion, " I teach John Latin " can be made, it is necessary for the teacher to know both John and Latin, and that to " know Latin " is not enough. Various methods of organisation with a staff of general practitioners have been employed. In some cases a teacher has taken the same class year after year, *i.e.* has confined his activities to a limited age range of the curriculum, but has taught all subjects within this age range. This is in effect specialisation—specialisation in the teaching of children of a certain age instead of specialisation in the teaching of a subject. In other cases the teacher has moved through the school with a class—pupils and teacher have alike been " promoted " each year. This can again be viewed as a kind of specialisation—specialisation with a given group of children. So the problem is not so much one of

the specialist versus the general practitioner as one of balancing the claims of various kinds of specialisation. Or, to put it another way, the need is to ensure that the teacher shall both know John and know Latin. To know either and not the other is equally fatal. The advocates of the general practitioner place emphasis on the need to " know John." They argue that the fact that he teaches John in all subjects gives him a many-sided view of John —that he can judge him by his reactions to many subjects and therefore as a whole, rather than by his reaction to one and therefore partially. To this the specialist replies that a number of independent judgments of John, made by a number of people, give a better composite picture of John than can be gained by one individual, no matter how many points of contact he may have with John. For after all, it is the contact all the time of just two personalities—John's and the teacher's.

Where specialisation is in force some machinery must be devised whereby the composite picture of John as a unitary personality can be obtained. This may be done through staff meetings or a system of House or Form masters. Whatever plan is adopted care must be taken to see that the picture of John is not dominated by some outstanding feature—good or bad.

A school is a community, and just as there is a mental climate of the community, so is there a mental climate of a school. It is from the staff and from their attitude to life that the pupils develop their attitudes. It is for this reason that it is so essential that teachers should comprehend the relationship which should exist between the methodology of the classroom—the actual conduct of the work of teaching—and the aims of the community and the place of the educative process in furthering this aim. Most teachers know something about methodology; a small but increasing number give consideration to the psychology of education, which should deal with the personal relationships of those concerned in the work of education. Some, Head Teachers and would-be Head Teachers, have an acquaintance with the general organisation of education. But it is a relatively small number that is conversant with the general organisation of the system as an institution for furthering the aims of education as visualised by the society which establishes it. Yet it is only against this background that the actual work of the schools can be seen in its real significance.

An Infants' School which admits one class of entrants each year (*i.e.* about 40 children) would probably require a staff of three assistants; a two-stream school (about 80 entrants) would require

six, and a three-stream school (120 entrants) nine; in each case plus the Head Teacher, although it is usual for the Head Teacher to be also a class teacher in the case of the smallest school. If there were Nursery Classes attached to the school, another assistant, together with a Nursery " minder," would be required for each group of 20-25 nursery children. The qualifications of the good Infant School teacher go far beyond the possession of the Board of Education certificate. The days are passing when it was thought that the younger the children to be taught, the less qualified was the teacher required to be. There is, of course, no specialist in the Infants' School, in the sense that there are teachers of special subjects. But the Infants' teacher is a specialist teacher, and her work is relatively as important as that of any other teacher at any other point of the whole educative process. Some would argue that it is the most important stage in view of the fact that it is in the Infants' School that attitudes towards school life are first developed that may last throughout school life.

The good Infants' teacher is concerned with many aspects of the child's life. More attention has to be paid to physical education, and the resulting formation of good habits than at other stages. Social education has to receive attention and the child led to become a co-operative member of a community. In addition to these aspects of the educative process, there is what is commonly viewed as the real work of education in an Infants' School—the stimulation and fostering of the interests of the growing child, and the provision of instruction in the tool subjects. It is fatally easy to view the latter as the sole task of the Infants' School, and the Junior School teacher is prone to approve of this view. But it is in the fostering of interests that the desire to read and write is stimulated, and from the desire comes the child's own effort, without which the teacher's work is largely wasted. The Infants' teacher must have sympathy with the growing child, must be quick to see when the right moment has come to move forward, must be patient, and, above all, must steer a wise course between setting impossible standards on the one hand and being content with slipshod work on the other. A sense of rhythm and some musical ability, power to tell a child's story in a child's way, good taste in colour and design, a pleasant voice, and, above all, a sense of the importance of each individual child are other essential qualities. It has been assumed that there are approximately 40 children in each class in the Infants' School. This is in accordance with the best modern practice, although the number often rises to 50. It might with real profit to the children be reduced to 30.

The needs of the Junior School staff as regards numbers are somewhat similar to those of the Infants' School. Assuming a four years' age range (7-11), a school having one class for each year would require four assistant teachers; one with two classes for each year eight assistants, while one with three classes for each year would require twelve assistants. In each case the Head Teacher should be additional to the assistants, although once more it is usual for the Head to act also as a class teacher in the case of the smallest school. If the school has a remedial class an additional assistant is necessary. Again, classes of 40 are usual in the Junior School. They sometimes rise to 50, but could with benefit to all concerned be reduced to 30.

It has already been pointed out that some Junior Schools are organised for one sex only, while others are mixed schools. This raises the question of the sex of the teachers to be employed in such schools. The general practice is for the Head Teacher and the staff of a Junior Girls' School to be all women. The Head of a Junior Mixed School may be either a man or a woman, and the staff is usually a mixed one in the former case and all women in the second. The Head of a Junior Boys' School is usually a man, and the staff a mixed one. It will be seen that the Junior Girls' School and the Junior Mixed School with a male Head Teacher usually have appropriate staffs. The debatable cases are the Junior Mixed Schools with a woman Head Teacher, and the Junior Boys' School with a mixed staff. The latter can be accepted as satisfactory. There is a definite place for women teachers in a Junior School. The mixed school under the woman Head Teacher is the real bone of contention. As the boys grow older, when they reach the age of 10 or 11, they need assistance from men. This is particularly true in regard to physical training and games, and in certain interests which are specifically those of men. There are, of course, two possible solutions. One is the appointment of men assistants to serve under a woman Head, and the other is to have only male Heads for Junior Mixed Schools. Objections to the first course are mainly rooted in prejudice, while those to the second are based upon considerations of economy. Neither objection should overrule the need for the most efficient Head Teacher available irrespective of sex, and an assistant staff upon which both sexes are represented.

Some Junior Schools are organised so as to permit of some specialisation in the teaching of the subjects of the curriculum by the staff. This is more often the case in the "practical" subjects, such as music, physical training, art, craftwork, rather than in

more "academic" subjects of language, number, history, geography, etc. This partial specialisation is bound up with other problems—particularly those connected with the construction of a balanced time table. How far specialisation is desirable in a Junior School is a matter of opinion. It is obvious that physical training is best placed in the hands of the younger and more active members of the staff, and that if there is a member who possesses real musical ability, the music teaching should be allocated to him or her. Art and crafts may also be regarded as lending themselves to specialisation, and if the work in these subjects throughout the school is in the hands of one or two teachers there will probably be more progressive schemes than when they are taken as class subjects. In particular, craft work often tends to be disconnected throughout the Junior School course. A good teacher in charge of the subject can avoid this.

It appears, then, that there is something to be said for a division of the subjects of instruction included in the time table into two groups—those which are part of the common heritage of culture—the mother tongue, number, history, geography, and the like—and those which can be classified as interests or activities—physical training and games, art, music, crafts, and the like. The former are best taught by the cultured general practitioner; the latter by experts in the particular activity. In activities the stimulation of the enthusiast is a decided asset in the teaching process. In order to render such an organisation effective any school of two streams or more should have a spare or "floating" teacher. This permits of time for the preparation of apparatus and material, and enables time to be spent in actual teaching which has otherwise to be used in preparation.

The staffing of the modern Senior School raises many problems, owing in part to the progressive introduction of more practical subjects. It is necessary to consider—

(*a*) Single sex schools. (*b*) Mixed schools.

In each case the size of the staff will have to depend upon the size of the classes and also upon the number of practical subjects included in the curriculum. It is usually assumed that the maximum number in the class should be 40. This means that for the purpose of practical instruction the class is divided into two groups, since twenty is the maximum the Board allows in one group for such instruction (unless there are two instructors available). In a one stream school (single sex) with a three-year course (120 boys or girls), this means at least four teachers where any practical work

is done; in a two stream school (240 boys or girls) at least eight are necessary, and so on. For any school having three or more streams, one or two " floating " teachers are essential, and where the practical work is increased a more generous staff must be provided.

The mixed Senior School presents peculiar problems of staffing, and these are often accentuated by the inequality in numbers of the two sex groups. The domestic science teacher can take up to twenty girls; the wood and metal crafts teacher the same number of boys, but classes do not always divide in this convenient manner. In some areas, and often in the rural areas, the craft teachers (both domestic science and woodwork) are visiting teachers, each attending for a given number of sessions per week. In this way each such teacher can serve a number of schools, and yet provision be made for practical activities. But wherever it is possible there is much to be said in favour of the practical subjects teacher being a full time member of the school staff. This makes for closer co-ordination of the different branches of the curriculum, and the practical instruction tends to become more an integral part of the curriculum and less an " extra " tacked on to it. It is for this reason that reorganisation in rural areas usually takes the form of decapitating the old village schools and the assembling of the senior children from a number of schools at one central point. This process meets with opposition—both on account of local prejudice amongst parents and also on account of the desire of the teachers not to lose their older pupils at the time when they begin to show the results of the earlier work done with them. But, given proper facilities for transport and for midday meals, the educational advantages of a school large enough to provide a full curriculum outweigh all other considerations.

The mixed Senior School needs staffing on a more generous basis than the single sex school. In general, given two schools of equal size, one a single sex school and the other a mixed one, the staff of the latter should be one more than the staff of the former, for numbers up to about 250, and two more where numbers exceed that figure. In such schools the Head Teacher is a man. This makes it essential that there should be on the staff a woman of considerable experience who can be responsible for matters with which the girls of the school are especially concerned. She should have the responsibility, under the Head Teacher, of dealing with all such matters, and should be regarded as the Senior Assistant.

There is a tendency for the staff of Senior Schools to contain an increasing number of graduates. The general movement to increase the standard of qualifications of teachers is to be commended. A

big stride has been made from the days when a trained and certificated teacher was a comparative rarity. Now many Authorities appoint only such teachers, and look in addition for further qualifications from applicants for posts in Senior Schools. Many of these teachers have received a four years' training—three years being spent in working for a Degree, and one year in the Teachers' Training Department. Other teachers have followed the usual two-year training course and secured a Degree or other additional qualification subsequently. No one maintains that the mere possession of a Degree makes the candidate a better teacher—particularly of children of the age range found in the Elementary Schools. But other things being equal, the wider range of knowledge which comes from a well planned course of reading, should give the graduate a background of reference which should make his teaching more effective. But once more it is necessary to remember that the teacher must know both his subject and his pupils. Further, the possession of knowledge may be a handicap if it is not accompanied by a sense of its value to his work and of its importance to the community. Sometimes over-specialisation in study leads to a wrong sense of values. The graduate should know his subject or subjects; he should also know their place in the whole field of knowledge. Unless he is aware of this he will be unable to give his pupils the real benefit of the education he has himself received.

Finally, it must always be borne in mind that the staff of a school consists of a number of individuals who must be welded into a real team if the combined effects of the talents of all is to be reaped. This task is one of the most important functions of the Head Teacher. He has to be quick in discerning the peculiar qualities of each member of his staff, and able to decide the treatment to which each member responds most readily. Encouragement in one case, assistance in overcoming difficulties in another, suggestions here, definite orders there, are all necessary. The staff are the adults of the school community and must have the qualities of adulthood if they are to have the real respect of the children. To be merely physically adult is not enough. Children do not expect to find childish attitudes in physically adult persons. When they do, they soon lose their respect for such adults. The staff has to provide the secure background of personal relationships in the school community against which real growth can alone take place. Differences of opinion there are bound to be, but petty bickerings there should never be. Children can only become

tolerant and understanding, they can only be creative and free and happy in an atmosphere in which those qualities exist. The function of the staff in any school is not only to teach the subjects of the curriculum; it has a task which is more important and more difficult than this. It has to provide a mental atmosphere in the school wherein the virtues of democracy can take root and flourish.

CHAPTER VIII

ORGANISATION—GENERAL

IT has been pointed out that organisation should never be an end in itself, but always set up as a means whereby the achievement of the educational aim of the community is facilitated. This implies that there is an essential connection between the theory of education and its practice, and that, contrary to the customary belief, it is the practising educator that must be the more fully equipped. The educative process may be subdivided into three stages. There is the work of the theorist, capable of expressing the general aims of the community in their educative aspect, and of demonstrating the kind of educational institutions which must be set up to give expression to these aims. Then there is the work of the administrator who has actually to establish and equip the schools and other institutions and see that both are the most suitable and efficient instruments for the fulfilment of the aim. Thirdly, there are the corps of teachers whose work it is to use the schools and equipment as instruments in their work of the realisation of their purpose.

Ideally the above three functions should be united in each educator. In practice there is a growing disposition to separate them, often with disastrous results. It is easy for the teacher engaged in the practical work of teaching to dismiss ideas which are in conflict with his practice as "idle theory"; it is equally easy for the theorist to fail to appreciate the difficulties which lie in the way of translating theory into practice. The British glory in their claim to be a practically-minded people, and are apt to be impatient of theory. But all practice must be either habit based upon tradition, habit developed by training, or action rooted in carefully thought out principles. The first characterises some educational work. Methods persist long after the reason for them has disappeared. They are educational fossils—interesting as museum pieces but not part of the strata of civilisation in which they occur. The second method for education practice is habit based on training, and is perhaps a stage in advance of the first. Much depends upon the source of the habits. A good course of training can instil into the young teacher a set of sound practising habits. It can at a higher level develop an attitude of critical evaluation of one's own or others' methods. At a still higher level it can develop the best of all habits, that of devising methods which are rooted in

principles and give expression to them. But often the teaching habits acquired are acquired unthinkingly, uncritically, as part of the teacher's stock in trade. Such habits may not be the fossils that the first mentioned class are, but they are always a stage behind the best thought of the time. The third is the only satisfactory source of method. Knowledge of previous method there must be, practice there must be, routine there must be, but all these things must be servants and not masters. They must be used as the raw materials upon which the thought of the practitioner is exercised, in his or her effort to produce a method which is alive and expressive of current ideals.

Theory and practice blend, therefore, in the task of determining sound method and organisation. And, once more, it is the practitioner who needs a combination of the theoretic and practical outlooks if he is to achieve the highest results. The theorist ranges over a wide field from the stating of the aims of the community in general in their educational setting to the statement of the aims underlying one specific part of the teaching of an age group or subject group. The administrator has to translate the theory into the provision of the necessary facilities, staff, schools, and equipment, which will enable the end to be achieved. The practitioner has to administer and organise these facilities in order that they may be used both efficiently and wisely. He cannot do this unless he has a knowledge, and a wide knowledge, of both theory and practice. This is the whole argument for an insistence that the training of teachers should include both an education in the theory of teaching and practical instruction in methods. A teacher may be a most capable organiser, but unless he knows why he is organising, he is bound to accept all current practice unquestioningly. In a totalitarian State the schools will be organised with an objective different from that which is operative in a democratic regime. But if the teacher in the democracy is unaware of the root principles of a democracy he cannot express them in his organisation. The organiser who is unaware of the fundamental purposes of his organisation inevitably comes to worship organisation as an end in itself. Since he is unable to justify it on higher grounds as the necessary means whereby a higher aim can be achieved, he can only justify it either on the grounds of expediency, or tradition, or custom. Either of these grounds leads to the organisation being viewed in an entirely wrong perspective—as an end in itself instead of as a means to an end.

This point of view is forcibly expressed by the editor of an American treatise on educational philosophy—*Modern Philosophies*

of Education, by John S. Brubacher, Associate Professor of History and Philosophy of Education, Yale University (M. Graw-Hill). He says: "Many an educational theorist could not manage a school successfully to save his professional life; sometimes he cannot even teach a university class competently. It is also true that many a practical school administrator or teacher, proud of his mastery of workable devices and technical minutiae, has so little knowledge of what the educational shooting is all about that he is doomed to be a mere mechanic without real comprehension of his direction and purpose."

Commenting on this quotation, the *Times Educational Supplement* (February 17th 1940) said:

"Britons on the whole mistrust theory, and many of our distinguished schoolmasters in the past have declared that training in teaching is not only useless but positively harmful. It is significant that of the 1,340 Head Teachers of Secondary Schools on the Board's Grant List in 1938 only 522 are described as 'trained.' The remaining 818 are called 'untrained,' a description which many would resent on the ground that they have been trained in the school of experience. Sometimes they bring to the argument examples of 'trained' teachers and lecturers on education who are failures in the classroom.

"Can we say that there is a philosophy of education? Perhaps it is more accurate to say that there are many philosophies, each based on some wider philosophy of religion, ethics, social life, or international relationship. Of late we have heard much of the value of freedom in the school and the desirability of allowing children to follow their individual bent. Against this doctrine we have the reminder that children are destined to become members of a community and that certain items of knowledge must be imparted to them. The practical teacher, with his equipment of workable devices, is able to impart the knowledge which is regarded for the time being as essential. His freedom should be respected, but it should be confined to method and not extended to cover the general purpose of education as he happens to conceive it. We have too many amateur philosophers of education ready and anxious to test their theories on children in the belief that the new Jerusalem can be built in classrooms and playgrounds.

"A good case could be established for having a uniform syllabus of essential knowledge such as every British child should have. The syllabus would not be permanent, but open to revision from time to time as national circumstances might demand; nor would it be so extensive as to take up all the working hours of school life. The aim would be to ensure that a limited but uniform body of necessary information formed part of the mental outfit of all citizens. This aim could be achieved in less than one-half of the school course, leaving ample time to foster individuality and to make an effort towards engendering a wider outlook by the teaching of religion and ethics, the practice of communal obligations, and other elements in social life.

"In his practice the teacher may gain much from the intelligent use of the accepted conclusions of the psychologist and the philosopher. Psychology tends to leave the domain of philosophy and to demand consideration as an exact science, but the teacher is not called upon to be either a psychologist or a philosopher in the technical sense. It is enough if he can make intelligent use of the conclusions of the theorist."

This comment is of interest. It admits that the philosophy of education is based upon a wider social philosophy, and goes on to argue that the only philosophy upon which education in this country should be based is that expressed in the institutions of the existing community. But it appears to express the view that the teacher is concerned only with method and organisation, and not with the general purpose of education. This can only mean that he is a technician, nothing more. It is essential that the teacher should be familiar with method and organisation. But he is also a citizen who has a most important duty to perform—the education of the rising generation.

In spite of all efforts to "freeze" civilisation and to make it static, in spite of all the tortures and inquisitions directed to achieving this aim, there arises from the lips of the man of thought the echo of those words of Galileo, "But still it moves." So the teacher must know the aims of his society, must be an active participant in their formation, for it is only thus that he can judge the changes which will affect the direction and scope of his work. More than this is necessary. The teacher has to be something of a seer, for he has to educate his pupils to an awareness of change and to a spirit which will consider it rather than shrink from it. He has to know the principles of the society in which his present civilisation is rooted and how these condition his work to-day. He has also to be able to take a share, in himself and also through his pupils, in the shaping of the educational work of to-morrow. Schools can be a bulwark of tradition and be rooted in the past alone. Or they may be, as indeed a State system of schools must be, rooted in the past, but sending out fresh roots into newly cleared territory. Otherwise there will always be a "time lag" between the best social opinion of the age and its expression in and through the schools. Education is not for the present state of society alone; it has to play its part in the movement towards the future. It is probable that there are decades when a consolidation of the gains already made should be the main objective; but there are other periods when a bold advance is equally desirable. This is true both in the field of education as a whole and also in the life of any individual school.

The relationship of the various parts into which the whole educational field can be divided is indicated below:—

Branches of Education

1. The Educational *Aim* of the Society of Community. (The *Principles* of Education.)

2. The *Provision* of Buildings, Furniture, and Equipment for the purpose of giving concrete expression to this *aim*. (The Educational System and its *administration*.)

3. The individual school in relation to the *whole system*. (*School Management* and *Organisation*.)

4. The School Community—staff and pupils—for whom the school is *organised* and *managed*. (The *Psychology* of Education.)

5. The *Learning-Teaching* relationship—using the *organisation* and based upon *psychological principles*. (The *Methodology* of Education.)

The same relationship, but including other factors, can be expressed in another way.

Relationship Between the Community and the School

The purpose of the Society or Community.

↓

Institutions of the Society—set up to give expression to its purpose.

↓

The Educational System—one of these institutions. Dependent upon the purpose of society, it may have a single or a two-fold aim.

(*a*) *The single aim*—to maintain the society or community as it is. This is the *static* aim.

(*b*) *The two-fold aim.*

(1) To maintain the society as a basis for

(2) A revision and extension of its original purpose.

This is the *dynamic* aim.

↓

The School—a unit of the system. It combines within itself two aspects.

(*a*) *The Psychological.* This is concerned with the teacher-parent-child relationship, and their effectiveness in achieving the purpose of the society.

(*b*) *The Material.* The provision of buildings, equipment, and furniture to be used for the purpose of aiding the psychological aim.

A school derives benefits from the community, and should return other benefits to it. The process is, as it were, one of crystallising out and of subsequent reabsorption. From the community come the teachers, the pupils, and its " social pattern " and its culture. To it should return the citizens of the constructive type, capable of playing their part in the building of a more just and more effective social pattern. This process can be represented very diagrammatically as below.

The Whole Community
(Gives the general social pattern and culture)

↓

The Local Community
(Includes variations based upon the general pattern)

↓ ↓

The Teachers The Pupils

↓ ↓

The School Community
(Rooted in the general pattern of culture but reaching out to a newer one)

↓

Constructively minded citizens from whom come the new generation of Teachers

↓

The Local Community

↓

The Whole Community

The process is, of course, a repetitive one. The thing to remember is that it can so obviously and so easily be made into a

standardised mechanical process for the production of similar units. Where the process *is* just repetitive it has this effect. This is the modern discovery of the politicians. The only counter to it is an insistence on the dynamic outlook as against the static. It is easy to organise a good school, then to " freeze " it, and allow it to continue to run, or rather to become an educational treadmill. Organisation must serve a communal purpose, and in a dynamic community must be prepared to adjust itself repeatedly to the impact of new ideas.

Far too often it is true to say that most teachers know a good deal of the Methodology of Education, while some in addition have a knowledge of the Psychology of Education. Some Head Teachers have an acquaintance with school management and organisation. A smaller number have clear ideas on the relation of their school to the whole system, while very few teachers see their Methodology against the background of the educational principles of the community of which they are a part. Yet it is only in the light of these principles that the methods take on meaning.

The responsible organiser of any school, *i.e.* the Head Teacher, has therefore a number of questions to which he must find satisfactory answers before he or she can hope to put into action a satisfactory organisation.

(1) What is the general educational purpose of the community as expressed in the system of education set up by it?

(2) What is the purpose of my particular school within the whole system?

(3) How can I use (*a*) staff, (*b*) accommodation, equipment, and material in the furtherance of this purpose?

(4) What of my pupils? What are their potentialities and capabilities? How far have they been prepared for the present stage by the past stage (or stages), and what form can my preparation for the next stage best take?

This is the first thing to be done in tackling any task which calls for the exercise of the reason. The existing situation has to be thoroughly appreciated, *i.e.* examined, understood, and known in all its aspects. In respect of a school this means a knowledge of the principles upon which the work is based, and of the facilities available, a recognition of the difficulties confronting one, and a weighing up of the helpful factors in the environment of the adverse ones. Beyond this it is necessary to consider one's personal qualities. Every organiser should make himself aware of his own likes and dislikes lest he allow prejudice to replace reason.

When the existing situation has been thus appreciated in an objective manner it is possible to proceed to the next step—the actual devising of an appropriate organisation. This means the utilising of the favourable factors in the whole situation, and the overcoming of the adverse ones, so as to achieve the desired end. It has already been pointed out that the achievement of an existing aim alone is never enough. Such a policy leads inevitably to stagnation sooner or later. Provision must be made for developing ideals and for progressive experimental work.

These general considerations apply to the organisation of all educational institutions—from the Nursery School to the University. The Nursery School must consider the aim of society. Its purpose in a totalitarian State would differ from that in a democratic one, and so, consequently, would the apparatus and methods it would employ. At this stage the difference might be only one of a change in emphasis, but it would be there and would be significant. At the University stage what started as a difference in emphasis would have become a difference in the whole technique. Again, the Nursery School has its own function within the whole system—but it has to consider its relationship to the world of which it is a part—and an important part of that world for the child is the next stage in education. So, too, Senior Schools must consider their relationship with the Junior Schools on the one hand and employment, evening classes, adult education, community life, and citizenship on the other. No school can be organised *in vacuo*. It is a part of the community's provision for the development of children. It may, and most certainly should, reach out beyond the present community to the community of the future. It is often forgotten that the children of to-day are the adult citizens of twenty years ahead, and that most communities develop. To prepare children for the community as it is to-day is to prepare them to be static. It is like trying to educate our grandfathers and grandmothers. But roots in the community the school must have.

The organiser of any school must carefully consider the quality and quantity of the children it is to serve. The age of the children determines the particular stage in the path to the realisation of the complete aim which it has to reach. Their numbers, and the distribution of these numbers through the age range of the school, determines the organisation of the classes within the school. In dual schools—other than Nursery, Infant, and Junior Schools, the sex distribution of the children has to be taken into account in the organisation. So, too, the quality of the children affects organisation. Their abilities determine the extent of their studies, and

what is less frequently recognised, their approach to these studies and the methods best employed by the staff. This is one of the most difficult problems the organiser has to solve. The method usually employed is to divide the children into two or three streams according to their intellectual ability, this ability being assessed either by the judgment of the past teachers of the child, or by the scholastic attainments of the child, or, in more modern times, by the use of Intelligence Tests. Occasionally a combination of two or more of these methods has been used. The problem is a difficult one for the organiser, and one to which a completely satisfactory solution remains to be found.

Assuming that the school population has been divided into streams, a further problem immediately presents itself. What is the curriculum appropriate to each stream? Far too often what is considered an appropriate curriculum for the "A" stream is devised, and then certain portions of it omitted in order to form a curriculum for the "B" stream, and other elements again to form the "C" curriculum. Often instead of the omitted academic portions of the curriculum there is included more "practical" work. This assumes that the "C" child can be educated through such activities and that "C" children can "do" practical subjects when they cannot do academic ones. This is not in accordance with the facts, for most children who are poor academically are below normal in practical work. Furthermore, such a view is a libel on all good craftsmen. The truth seems to be that the "A" boy or girl is good at both practical and academic studies, but that the *practical approach* to education is the only one which will produce satisfactory results with the "C" child. It should be noted that this "practical approach" does not mean merely the substitution of practical work for academic work. It means an approach to all subjects which is appropriate to the mentality of the children concerned. The whole question merits very careful and thorough examination.

It is possible to approach it from another angle. There are two elements in the subject matter of the curriculum of any school. There are certain skills and techniques which are the *tools* of education, and there are the educative activities in which these tools are employed. The basic or essential skills are themselves of two types. There are those which are common skills—skills essential to every member of any modern community—and the individual skills, those which are needed by the individual in the development of his peculiar interests and abilities. There is a pressing need for a thorough investigation into what constitutes

the basic common skills. One thing appears to be certain. They are many fewer than is commonly supposed. The influence of two factors makes itself apparent in discussions upon this topic. In the first place there is the influence of tradition. That which has been taught for a long time takes upon itself the appearance of the essential. The second factor is a more subtle, but equally important, one. There is a tendency for those things which the adults of the educational world have found to be necessary in their lives to be viewed as essential in all lives. This probably accounts for the maintenance of the academic tradition. The operation of this factor is not, however, confined to those concerned with education. Many laymen hold the view that what is " basic " in their lives is, or should be, basic in all lives. An accountant, whose office is equipped with machines which can perform calculations so long as the figures concerned are expressed in decimals, is inclined to believe that the essential technique which should be taught in schools is conversion of fractions into decimals. A compositor believes that spelling is the one essential. The need for thorough and careful analysis and research is apparent here. For upon this knowledge depends much of the organisation of both Junior and Senior Schools and perhaps, too, a resolving of the conflict between class and individual teaching. For with a knowledge of the essential skills, it might be possible to teach these most efficiently and economically to classes of approximately equal ability, *i.e.* to A, B, and C streams —each stream proceeding at its own appropriate rate. This is the proper and legitimate sphere for class teaching. There remains the more individual skills, those required by the individual pupils in the development of their particular abilities and interests, and then the activities in which the techniques are used. To argue whether the skills should be taught prior to the activities, or whether they should be taught only when needed in some activity is on a par with the argument as to whether the hen or the egg came first.

The basic skills—those in common and general use have to be taught because they are essential in the life of all—the activity in which they are to be used is life itself. They include physical elements, intellectual elements, social elements, and moral elements. This is the education common to all children, be they rich or poor, of greater intellect or lesser. The remaining part of education must be increasingly individual, since it is based upon factors which are peculiar to each child. For reasons of economy and for expediency children may be grouped. After the skills common to all there are possibly group skills. Beyond this point even the skills become

highly individualised. The skill of breathing properly is one needed by all. The skill demanded to solve differential equations is needed by only a few.

In addition to this determination and classification of skills, another question presents itself. Assume for the moment that a list of skills has been determined, consisting of—

(*a*) Those needed by all.

(*b*) Those needed by groups—either on the basis of ability or of interest.

The question then arises as to when these skills should be taught, *i.e.* to children of what age. Here again it is tradition that plays an important part in current practice, and it is a tradition that has only recently been challenged. It is reasonable to assume that there is a stage in a child's development, when any particular skill or technique can be taught and learned most effectively and efficiently and with a minimum of strain. It would appear that from tradition many skills are assumed to be common skills, when they are nothing of the sort, and are taught at a given chronological age when the child is not ready to assimilate them. This question of the age at which skills should be taught raises another one. The age at which they should be taught is clearly a mental age and not a chronological one. To expect all the members of a class of six-year-olds to acquire a number technique at the same pace is to expect the impossible. That this is so is recognised by the fact that it is customary to divide such classes into sections. Even then difficulties inevitably arise when promotions are made. The great danger is that there may be gaps in a child's knowledge of basic techniques which will cause serious retardation in later stages of his school life, and also give rise to emotional disturbances which may affect his whole attitude to school work. The organiser should be aware of these dangers and should endeavour to make his system elastic enough to cope with them. Some of the modern scientific arithmetics are based upon the principle that all the number combinations necessary should be made effective, and these books provide one of the true scientific approaches to this problem. In Senior and Junior Schools it is often found that it is no use working at what appears to be the present difficulty of the retarded child, but that it is necessary to go back some years into his past developmental history to find the real origin of his trouble.

It is now possible to state certain principles upon which the general organisation of a school should be based.

(1) It must express the present general educational aim of the community, but must also be dynamic—moving forward to the future. This gives the *general* purpose of the organisation set up.

(2) It must take account of the special function of the type of school which is being organised within the whole system of education. This is the *special* function of the school.

(3) It must take account of the varying abilities, interests, and rates of growth of the children and make provision for all so far as is humanly possible.

(4) It must teach the basic physical, intellectual, social, and moral skills to all children, make provision for activities which are the intellectual fields of adventure for the pupils, and cater for individual skills which particular children need.

This means that an allocation of time must be made between skills and activities. To concentrate on skills and to neglect all else may make for a neat and tidy school. It is easy in such a school to " show results "—the over-neat exercise book and the facile repetition of the conventional pattern. But life is not like that, and activity which struggles through errors and mistakes to ultimate success is the only path to development. On the other hand, to neglect the skills is to fail to provide the child with the essential tools through the use of which alone he can succeed in his task.

The school must be organised to give expression to a purpose; it must serve that purpose both generally and also particularly. It must make its pupils conscious of that purpose, and must not only deal with skills but with the will to use those skills in an active life. To do otherwise is to be satisfied with the production of the efficient robot. The conflict between the mechanically operated robot and the man motivated by his own will has been the theme of legend and story. It has been the subject of drama and the raw material of history. And now whole States are in conflict over the same two opposing principles. School organisation in a democracy must give expression to the truly democratic ideal of the citizen motivated by an informed will.

CHAPTER IX

ORGANISATION—TYPES OF SCHOOLS

IN the previous chapter the general functions of school organisation have been discussed. In the present one it is proposed to consider how these principles should be applied to the organisation of schools of various types. It will be necessary to keep in mind the organisation of the whole system and the place of each type of school within this system.

It has been pointed out that in general the English educational system is moving, if only slowly, in the direction of an "end on" system, one in which a stage of primary education is followed by one of secondary education. At present, owing largely to a combination of past history and present circumstances, the dividing age is at 11 plus, although the reasons for this age being the dividing one are not of the soundest. Furthermore, the "secondary" stage of education is not yet a unified one, that is, it is not yet equal in status or controlled by the same code of regulations. But the movement towards a complete "end on" system is definite, and it is not unlikely to be accelerated by the demands of the post-war world.

Perhaps the two aspects of the English educational system which demand to-day the most thorough examination are the age at which primary education should terminate and secondary education begin, and the means by which all post-primary education can be made definitely secondary, in practice as well as in theory. These two great stages of education have different aims which will determine the organisation and methods of the schools. The function of the primary school (this is here taken as including the Nursery, Infant, and Junior School) is to safeguard the physical development of the growing child, to stimulate and exercise his senses, to equip him with the fundamental techniques he will need in his later years, and to provide such a field of activity for him, both physical and mental, that he will come to the next stage of education so equipped physically, mentally, and in will power that he will be able to profit by it. This is not to say that the work of the primary schools is merely preparatory, for it is only in so far as the child lives completely during his primary school years that he will be really prepared for the secondary school ones. To

look upon the work of the primary school as merely preparatory is to deny it any value of its own. But the boy or girl who is proceeding to the secondary stage of education needs certain qualities and achievements in order to take advantage of the facilities offered. It is the work of primary schools to see that, so far as the needs of the secondary stage are real needs, these qualities are developed and the achievements attained. Once more, this is not intended to imply that the secondary schools should dominate the work of the primary ones. It does mean that the primary schools and the secondary schools each have their own function in the general scheme of education, and that the achieving of this aim in the primary school is the only way in which the secondary school aim can in its turn be realised.

The function of the secondary school is to continue the physical development of the child, and to use the basic techniques in occupations which are of cultural value, to develop specialised techniques in those pupils who have need of them, and to provide fields for their exercise. This is not the place to discuss the question of what is meant by "cultural value." It will be sufficient to say that it is becoming increasingly recognised that the battle between cultural and vocational is no longer one in which educationists are vitally interested. What is now regarded as cultural was once strictly vocational. What is needed to-day is a conception which transcends and includes both of the present conceptions of cultural and vocational. It is in such occupations that the pupil has to use the basic skills acquired in the primary school.

The primary range is commonly divided, as has been pointed out, into two sub-stages, and sometimes into three. In the full range there is the Nursery School (2-5), the Infant School (5-7 plus), and the Junior School (7 plus to 11 plus). Sometimes the first of these is omitted; sometimes, in the form of Nursery classes, it is attached to the Infants' School; sometimes the last two stages are combined. Whether this organisation remains, depends largely on the answer given to the question as to what is the proper age for the division between primary and secondary education. While there are those who would like to see the break between elementary and secondary education take place at the age of 9, there is a greater volume of opinion in favour of the break taking place at 13. But this lies in the future, and for the present the existing organisation holds the field. It is therefore necessary to discuss in the first place the organisation of the three types of schools commonly included in the primary school range, and it will be convenient to start at the lowest age range and work upwards.

The Head Teacher of any school is the organiser of that school. If it is a new school he or she has to set up the organisation; if it is an established school one is taken over from the previous Head Teacher. In either case the first thing to be done should be to prepare a careful and critical *appreciation* of the situation. This means that all the relevant factors have to be taken into account, and the part each has to play in relation to the others carefully considered. Most commonly some such attempt is made at appreciating the situation, but the task is not commonly carried out with the thoroughness which it deserves. Nor is it sufficient just to think over the various problems which arise in a disconnected manner. What is needed is a coherent statement, and there is much to be said for preparing it in writing. Such a written appreciation should be prepared under definite headings, the following being a suggested scheme.

(*a*) AIM

(1) Of the system as a whole. (2) Of the particular school.

(*b*) THE SCHOOL BUILDINGS

(1) Accommodation. (2) Classrooms and special rooms.
(3) Equipment and furniture. (4) Playing fields and other facilities.

(*c*) THE ENVIRONMENT

(1) Type of area. (2) Main industries and occupations.
(3) Facilities for extra-mural work.

(*d*) THE STAFF

(1) Numbers and qualifications. (2) Special points of strength or weakness.
(3) Main interests.

(*e*) THE CHILDREN

(1) Number on roll. (2) Age distribution.
(3) Distribution by classes. (4) Distribution by I.Q.'s (if available).
(5) Nourishment and clothing.

(*f*) THE PARENTS

(1) Predominant occupation. (2) Co-operative or otherwise.
(3) Possibility of a Parent-Teacher association.

These headings should cover the main factors in the situation. The next stage is to consider this information and to reclassify it under two headings.

(*a*) Factors in the situation which are likely to *aid* in the achievement of the general and specific aims.

(*b*) Factors in the situation which are likely to *make difficult* the achievement of these aims.

This preliminary appreciation of the situation is well worth while. It ensures the field being carefully surveyed and all the factors involved receiving due consideration. It makes clear the point of departure and indicates the route to the desired arrival point. It reveals factors which help and those which will hinder—the points of strength and those of weakness in the situation. It is suggested that such an appreciation of the whole position should be made by every Head Teacher on appointment to a new post, and it would be a valuable thing if all existing Head Teachers so surveyed the schools for which they are responsible at regular intervals, say every three or five years. Such an appreciation is as necessary in a Nursery School as in a Secondary School. No experiment can be successful and no planning satisfactory unless it is based upon a closely reasoned evaluation of the present situation and of the favourable and unfavourable factors in it.

The organiser has now the data upon which he must base his detailed organisation. In the first place there is the general aim to consider—how this can be best achieved with the buildings, equipment, staff, and children available. This determines the general organisation of the school; the specific aim determines the details. It may be necessary to include in the organisation devices by which the favourable factors can be made use of to the greatest extent, and others whereby the effect of the adverse factors can be reduced. All this does not mean a rigid and inflexible scheme—one incapable of modification. A change in the external situation may modify either the good or the bad factors, and when this occurs a fresh appreciation of the situation is necessary.

It should not be difficult to apply the method which has been suggested to any particular school. Each type of school will have its own special needs and its own peculiar problem. Some of these are discussed in the following pages.

The special function of the Nursery School or Class is to provide that environment which stimulates the young child and at the same time provides a field wherein he can exercise his developing powers. Good physical habits have to be formed, and the social side of the educative process is of importance. The child has to learn how to behave as a member of a community, and the necessity for curbing some of his more selfish and assertive behaviour in order that he

may be assured of the co-operative assistance of others. This means that the organisation of such schools and classes must provide facilities for training in physical habits—drill in washing, teeth cleaning, and so on. Then, too, the communal meal furnishes opportunities for the development of the rudiments of the ideal of communal service. The occupations, and they must be suitable, graded and ample, provide for the need of young children for movement and activities. Simple story-telling inculcates the lesson that noise is sometimes objectionable and detrimental to one's fellows. The examples could be multiplied, but in such schools informality of teaching is the guiding principle. This means that the organisation must be such that it is unobtrusive, and only shows itself in the smoothness with which the day passes and in the happy preoccupation of the children with their tasks. The time has not come, for these children, when "subjects" and time tables are needed. Their time table is that of healthy and regular development and living. They are still remote from the time when each part of the day is to have its specialised task—work, play, and sleep. There should be no need for them to have the dream of the Mad Priest in *John Bull's Other Island*—"I dream of a world where work is play and play is life; three in one and one in three." For them work and play and life must be "three in one and one in three." And the organisation of the Nursery School and Class should enable this ideal to be realised.

The Infant School caters for children from 5 to about 7 plus. This is not the place in which to discuss in detail whether these are the most appropriate ages for the work commonly done in Infants' Schools to be attempted. A good case could be made out for a combined Infant and Nursery School dealing with children from 2-7 with the proviso that this would entail a continuance of the Nursery School methods up to 7, and not mean the reverse—a commencing of the Infant School work at an earlier age. But, accepting the present organisation, what are the main considerations that should guide the organisation of the Infants' School?

In the first place it has to ensure that the children attain that stage in the achievement of the general aim of the educational system which is appropriate to their age. It has to extend and develop the work carried on in the Nursery School or Class. Its main concern will still be with physical habits, social education, and the development of activities. But the acquisition of the rudimentary skills and techniques which make further education possible will begin to have importance, particularly in the upper range of the school. This is not the place in which to discuss the

methods to be used, but in the well organised school two factors will be kept in mind. The teaching of the skills will arise from a felt need in the child and not be arbitrarily imposed from above, and they will be acquired at such a stage of mental development that the minimum of energy will be expended in their acquisition, and that there will be also a minimum of strain in the work. Again, the Infant School organisation must take account of the age and capacity of the children. Ability to concentrate on a task begins to develop, and this factor should be used. But the old days when the whole of the child's school day was parcelled out into half-hours rigidly separated has gone. The organiser has to consider the question of balance in the activities of the Infants' School. Physical activities, social activities, mental activities, and the acquisition of skills all have their place. And, generally speaking, the Infants' School child is not at the stage when these activities can be rigidly separated. Nor is it desirable that they should be. But in the various activities there may be an emphasis on one or other aspect. The great need is for a balanced scheme of activities which at once stimulates the potentialities of the growing child and provides a field for their satisfaction.

It is usual to make provision for the more formal activities during the morning session and so to leave the afternoon session free for the more recreational ones. Even this broad division needs careful watching lest it deteriorate into a conception of work in the morning and play in the afternoon, with a resulting development of a false outlook in the child whereby some cultural activities become work and therefore to be avoided, and others become play and therefore not important. Teachers and parents are not free from this false antithesis. Too often the learning of the 3 R's becomes "work," and art, craft, drawing, and similar activities become "play." The organisation of an Infant School is effective when the children attending it are making all round development in a happy atmosphere, and one from which undue strain and emotional tension are absent.

It is during the Infant School period that children begin to show signs of differentiation in the matter of maturation. Some are ready for the next stage at an earlier chronological age than others. This fact adds to the difficulties of the organiser who looks for something more than a neat system into which every one is forced to fit. For some six-year-olds, a too early advance to the next stage means a lack of fundamental knowledge and techniques which will lead inevitably to increasing emotional tension and backwardness as the child proceeds through the junior and secondary

schools. There is an increasing willingness to recognise this, and an increasing readiness to experiment in organisation in order to remedy, if not to remove, the evil caused by it. The real remedy is a drastic reduction in the size of classes with the resulting possibility of more individual work. But many Infants' Schools are working out a technique whereby the children work individually on the acquisition of techniques and in groups in other activities. The individual record book showing the stage satisfactorily completed by each child is one method of ensuring that each child has satisfactorily completed one stage before proceeding to the next. It may be objected that such individual children may reach the end of the Infant School course without having acquired those skills commonly expected from Infant School children, if they proceed at paces appropriate to themselves. This is so, but it is preferable that the children should be confident of what they do know, no matter how limited is their range, than that all the children should show a false uniformity of acquisition which will only prove to be false and the source of difficulties and fears and strains at later stages in their school career.

A good system of transferring the individual records from the Infant School to the Junior, and frequent conferences between the staffs of the two schools should ensure a maximum of smoothness in the transfer of the children. It is far better that children should pass from the Infants' School to the Junior having acquired thoroughly that which their mentality and rate of growth make possible, than that they should proceed from the one school to the other already feeling the strain and stress which comes from the effort to acquire new skills and knowledge on a basis which is itself imperfectly known.

The Junior School organiser has to appreciate the situation with which he or she is presented, just as other organisers have. This means that there must be a clear conception of the general function of education and a clear conception of the proper function of the Junior School within that system. It means a knowledge of the children who are to pass through the school, and this means the closest possible collaboration with the Infants' School from which they come. The need for this has been pointed out above. Generally speaking, the kind of information passed on is too vague to be of concrete value. What is needed is information regarding the general intelligence of the pupil, the skills he has thoroughly acquired, any special interests, and any marked points of weakness. Care must be taken, of course, not to go to the extreme of pre-

judging the child. Education is a process which proceeds largely by the contact of mind with mind and many a child whose progress with one teacher is a matter of concern will proceed quite satisfactorily with another. But the records to which reference has been made should be as factual and as objective as possible. Then they furnish the *necessary* data for any sound Junior School organisation. For the potentialities of the children and the stage of development they have reached are obviously determinants of what they can do in their new school.

In the Junior School specialisation, in the sense of specialisation by teachers, has very little place. It is true that ability in one activity, such as music, or physical training, may be utilised throughout the school, but it is the all round practitioner who is of greatest value at this stage of education. Yet a kind of specialisation does become evident in the Junior School. The time-table becomes more rigid; the dividing line between the acquisition of techniques and the carrying out of activities tends to become more marked. These are points which demand much careful consideration.

The Junior School is a comparatively new unit in the educational system of this country. It has served to bring into the limelight the nature and achievements of the child of 11 plus. In the old "all age" school these children were commonly lost sight of. Much was said about the entrants, and a lot about the leavers. The middle part of the school was apt to be like the middle part of life—less subject to comment and more conventional than the extremes. But now the child of 11 plus is an "end product," and as such important. The success of the Junior School child is apt to be measured by his capabilities. This all makes the organisation of the Junior School an important matter. Many have argued that it is the legitimate heir of the old all-age school, and that its function is the "thorough" teaching of the 3 R's. This is an example of the manner in which the conceptions of an older age can be carried forward uncritically into a later one. When the function of the educational system of this country was to produce a literate people (as it was from 1870-1900) then the function of the all-age school was to give instruction in the 3 R's. But when the function of the educational system as a whole has changed and has become the production of a cultured democracy, then the position of the Junior School within the system must be determined afresh.

It is true that certain skills and techniques have to be acquired in the Junior Schools, and true again that these skills and techniques may be those which are the more commonly used ones. But skills

and techniques have to be acquired at all stages and at all stages (including that of the Junior School) they have to be acquired for use in activities, not as ends in themselves. If there are many more *common* ones, *i.e.* skills needed by most children, at the Junior School range that is no reason why Junior School education should deteriorate into a mechanical drill in these skills. Rather it is a reason why careful investigation should be made as to the appropriate stage of development (not chronological age) at which these skills can be best acquired, *i.e.* with the least amount of strain, and then into the problem of the technique by which they are best taught. If there is to be any satisfactory superstructure of secondary education beyond the primary school stage it can only be made possible by the acquisition of the essential skills. Further, it is essential that the organisation of the Junior School should provide a means whereby gaps in fundamental knowledge are eliminated as far as possible. Again, the organisation must recognise the fact that children do not all develop at one pace. The stage reached by all children at a chronological age of 11 plus cannot be the same. Some will be of a mental age of 12 plus, others of 9 plus, and this must mean variation in the stage of development reached. To expect every child at the end of the Junior School course to have attained the same standard is to expect the impossible. To attempt to secure such an end means that some children will be retarded in what they might have achieved, while others will have been overstrained in an effort to achieve the impossible. The really basic skills can be acquired by the majority of Junior School children since they are fewer in number and more simple in character than most people are prepared to admit. Some children will proceed beyond this stage during their Junior School course; others will only just reach it. It is wrong to think that the children can all start their secondary education at the same stage of development when the transfer to secondary schools is based on a chronological age. It is this diversity in rate of progress, and in specific interests and potentialities, that is the real basis for a secondary school system in which there is diversity of curricula and not simply diversity in the names of the different " types " of schools.

In the chapter upon examinations the influence of tests at the end of the Junior School course upon the curricula and methods of the Junior School is discussed. It is sufficient here to point out that the allegation that the curricula and techniques of this school are dominated to a great extent by such a transfer examination is true, and that circumstances conspire to make it difficult for the Junior School to break free from this bondage. It would appear

obvious that the only real solution is the recognition of all post-primary education as being secondary in character, of equal status, and carried on under similar conditions. This would carry with it the right of each child to proceed to that kind of secondary education for which his potentialities fitted him upon production of proof that he had acquired the necessary fundamental skills. This seems to indicate that the transfer examination might consist of two parts—the first in the nature of an intelligence test with the object of assessing ability to profit by different forms of secondary education, and the second in the nature of a qualifying test devised to prove a knowledge of the fundamental skills.

Even where the ordinary transfer examination remains, and even when its importance in the lives of the children is recognised, it should not be allowed to distract the attention of the organiser from his main task. The specific function of the Junior School is *not* to prepare for the transfer examination, but to foster the natural development of the child during the Junior School years, and so to prepare for the succeeding stage of secondary education. The proportion of children who will win a scholarship is small, and it is obviously an untenable position to endeavour to maintain that all the other children should be subjected to an unsuitable education in the interest of these few. Educators are apt to identify themselves with their successful pupils, to ascribe the failures to heredity, and to forget about the great middle section which attain neither to fame nor notoriety. Yet it is these silent and undistinguished masses that will become the ordinary citizens of the future, and upon their soundness must depend ultimately the welfare of the State. The Junior School Head Teacher may feel that the future of those children likely to be transferred to existing secondary schools is one of his concerns; he must never allow it to be his sole concern. In other words, his organisation must be such as will enable all his pupils to achieve the real aim of the Junior School, and not merely a section of them.

The trend of progress in the Junior School is towards a widening conception of education. Even those who submit to the dictation of the transfer examination are feeling an increasing desire to achieve an end more truly educational. The result is that in recent years a number of " modern " methods have been suggested and tried—the Winnetka Plan, the Dalton Plan, the Decroly Method, the Montessori Method, the Project Method, and others. This is not the place to discuss these methods or the one in which to attempt to evaluate them. In general they attack the problem of education from two points of view—that of the curricula and that of learning;

and teaching technique. Some methods, such as the Dalton Plan, take the existing curriculum, but devise a new technique whereby learning is correlative with teaching and whereby provision is made for individual differences in the rate of learning. Other methods, such as the Decroly Method or the Project Method, involve a new method and a new technique in combination. It is sometimes argued that these methods result in wide " gaps " in the children's knowledge, but it is doubtful if these gaps are greater than those which are bound to occur even in the older and more formal type of curriculum. The organiser has to determine whether either of these methods, or any combination of them, will assist him to achieve his aim. His object is not to organise a " scholarship winning " school, or a " Dalton " School, or a " Project " School, but just a good and efficient Junior School. If this aim is achieved scholarships may be won—by suitable children; the Dalton Method or the Project Method may be used as required. But the scholarship result is a by-product, and the method a means and not an end. To endeavour to make a school an imitation of another is to substitute means for ends. One school may be successful with one modern method; it by no means follows that the use of the same method will invariably bring success in another school. The school may have the same general aim, as all Junior Schools should have. But the way in which this aim is attained must inevitably vary from school to school, since the factors operative, accommodation, equipment, number and qualifications of staff, and type of children vary. Modern methods are to be used, not slavishly and blindly followed. The rigid adoption of a method in unsuitable conditions may cramp and limit a school in exactly the same way that over-emphasis on the transfer examination may do.

The Junior School organiser must come to a decision on the relation between the skills and techniques and the activities. It has been pointed out that the general line of development of education in this country has been one of increasing emphasis on the activities, and that this is due to the fact that the general aim of education has changed from the development of a literate people to the development of a cultured one. The basic skills are essential and must be learned and learned thoroughly. But they must be recognised as means and not ends. So the tendency has been for an increase in the activity side of the Junior School. The need for using the developing interests of the child as the motive for education is becoming increasingly recognised. Some Junior Schools have experimented in the upper classes with school journeys; parties of 20-30 have stayed for a week or a fortnight at Youth Hostels, and

the results are good. Craft in Junior Schools requires much careful consideration. It is rare that a good progressive plan for the craft work is found. Games and Physical Training are receiving increasing attention, and the teaching of Art is a current live topic of discussion. One particularly difficult problem will confront the Junior School organiser. It has been agreed that certain of the fundamental skills can be taught to homogeneous groups, but that a rigid division of the school into artificially similar groups creates a false sense of values in the children and replaces the heterogeneity of life by a false homogeneity. It is therefore necessary to provide some means whereby children of varying ability and perhaps of different ages are brought together in activities which demand various talents and capacities. Only so can the child attain to *social* education in the Junior School. Rigid classification for all subjects and throughout the day is apt to produce very undesirable results. The solution of this problem is one which only the individual school itself can achieve. In general it probably involves the use of the best of the old method in combination with the best of the newer ones. The organiser can only solve it when he is in a position to appreciate the conditions and problems with which he is confronted.

Confusion often results from the nomenclature employed in describing the educational provision of this country, particularly that for the post-primary stage. An appendix to the Hadow Report on the Education of the Adolescent classifies the terms which are now used or have been used, into three groups as under:—

(*a*) Terms which have some statutory authority, having been partially defined, or employed in Acts of Parliament which are still in operation:

(1) Elementary Education, Elementary School, and Public Elementary School.
(2) Central School or Class.
(3) Higher Education.
(4) Secondary School and Secondary Education.
(5) Grammar School.
(6) Intermediate School (Wales only).
(7) Continuation School.

(*b*) Terms which now, or in the past have been defined for administrative purposes by the Board of Education or by the Department of Science and Art (up to 1900):—

(1) Higher Elementary School.
(2) Junior Technical School.
(3) School of Science or organised Science School.
(4) Preparatory School.

(*c*) Terms used by the Board of Education, the Charity Commissioners (up to 1900), Local Education Authorities, Governors of endowed schools, teachers, and other persons interested in education:—

(1) Primary School and Primary Education.
(2) Higher Grade School.
(3) Higher Top.
(4) Senior School.
(5) Preparatory Department.
(6) High School.
(7) Middle School.
(8) Commercial School.
(9) Junior Commercial School (or Course).
(10) Full-time Day Technical Classes for Junior Pupils.
(11) Trade School.
(12) Full-time Junior Art Department.
(13) Private School.

Since the student may meet with any of these terms in the course of his studies, the notes upon them given in the Hadow Report on the Education of the Adolescent are reproduced in the Appendix (see page 351).

As has been pointed out in an earlier chapter, the Hadow Committee, in its Report which was published in 1928 made three main recommendations. These were:

(*a*) That primary education should be regarded as ending at about the age of 11 plus and that all children should then go forward to some form of post primary education.

(*b*) That this second stage should, as far as possible, be organised in a single whole within which there should be variety of types.

(*c*) That the school leaving age should be raised to 15 years as from 1932.

The position of all types of provision for post primary education must be considered in view of these three recommendations, for they are vital to any understanding of the present position of post primary education and therefore basic to the setting up of a sound organisation to deal with it. Taking the last recommendation first, an Act was passed in 1936 to raise the school leaving age to 15, with exemptions for "beneficial employment." This Act was to come into force in September 1939, but was suspended on the

outbreak of hostilities. The second recommendation is also still to be achieved. The second stage of education is not organised as a whole, but consists of three parts. The State provision for post primary schools takes the form of—

(*a*) Secondary Schools as now established, both (1) maintained by public funds, and (2) aided by public funds.

(*b*) Modern Senior Schools both non-selective and selective, and Technical Schools.

Outside the State system is the independent Public School system. The Hadow Committee suggested a new nomenclature as stated in the following recommendation:—

" It is desirable that education up to 11+ should be known by the general name of Primary Education, and education after 11 by the general name of Secondary Education, and that the schools mentioned above which are concerned with the secondary stage of education should be called by the following designations:—

(1) Schools of the ' Secondary ' type most commonly existing to-day, which at present pursue in the main a predominantly literary or scientific curriculum, to be known as Grammar Schools.

(2) Schools of the type of the existing Selective Central Schools, which give at least a four years' course from the age of 11+, with a ' realistic ' or practical trend in the last two years, to be known as Modern Schools.

(3) Schools of the type of the present Non-selective Central Schools, with a curriculum on the same general lines as in (2) and with due provision for differentiation between pupils of different capacities, also to be known as Modern Schools.

(4) Departments or Classes within Public Elementary Schools, providing post-primary education for children who do not go to any of the above-mentioned types of Schools, to be known as ' Senior Classes.' "

Shortly after the publication of the original Hadow Report the Board of Education issued a pamphlet entitled *The New Prospect in Education.* Some sections of this pamphlet indicate so clearly the purpose of post primary education that they are worth quoting in full. Regarding the types of schools and their functions it is stated:—

" It is true that the Elementary Schools have for many years not been content merely to provide an elementary education in the narrowest sense, as it might have been understood, for example, by

the early pioneers of schools for the poor or even by those responsible for the early Education Acts. But efforts at extending the work have hitherto of necessity been directed in the main to the provision of more advanced instruction for a selected number of children. By the Education Act of 1918, Parliament required children to remain at school to the end of the term in which they reach the age of 14 years, removing the various exemptions under which children had left before that age, and laid on all Local Education Authorities the duty of providing practical and advanced instruction for the older children, including those who remain at school beyond the age of compulsion. This is the latest of many stages by which the age of compulsory school attendance has been raised during the last 40 years, but the process has been so gradual that at no time has it been generally recognised as requiring any fundamental change in the machinery or outlook of the ordinary Elementary Schools. The Report makes it plain that some very valuable work is being done for the older children in these schools, but that, when all children now attend school for at least three years after reaching the age of 11, it is in the highest degree wasteful not to recognise the claims of all these older children to receive an education suited to their special needs. The problem set by the Report is thus essentially different from that which has given rise to the extension of Secondary School provision and to the establishment of the Junior Technical and the selective Central School. It is that of the adaptation of the existing Elementary School system so that all the older children, not a selected few, may receive an education suited to their age and special needs, practical in the broadest sense, and so organised as to allow for classification and differentiation between pupils of different types of capacity and of different aptitudes.

"The Secondary School, as we now know it, must continue as a school in which all will follow a curriculum including a foreign language, mathematics and a scientific subject, and in which the course will be planned for pupils remaining at school till at least the age of 16, with definite provision for post-matriculation work by a substantial proportion of them. As more alternatives become available for pupils needing courses of different types, the more important will it be to maintain in their proper sphere the special standards of this traditional type of secondary education.

"The Junior Technical School, varying in the details of its methods in different parts of the country, may be expected to retain its distinctive characteristic of providing an education with a strong bias in the direction of a definite industry or group of industries of local importance, and for this purpose it will always cultivate close relationship with the industries concerned.

"The nature and extent of the provision made under these heads will clearly affect the methods adopted in any particular

area for the establishment of Senior Schools for the great mass of the children. But the problem is itself distinct, involving as it does a readjustment of the existing Elementary School system, and being concerned in the main with the education of children within the period of compulsory school attendance. It is with a problem thus limited that the present pamphlet is concerned."

The case for a new organisation to meet the situation is expounded as follows:—

" The difficult task of reorganisation will never be accomplished —or will be of no real value—unless it is based on a conviction of the value of the changes proposed, and on a clear conception of their purpose. It may, therefore, be worth while, before dealing with details to summarise briefly the reasons which appear to justify the demand that the problems and difficulties of a radical change in organisation should be faced. The Report does not ignore the good work already done for the older children in many Elementary Schools, but its conclusion is that this good work is done under highly adverse conditions, and that teachers who attempt under the existing system to overcome the evil of ' marking time ' are faced with a task of extreme difficulty. Many gallant attempts have been made, but all the experience gained from them emphasises the advantage to be derived from an improved organisation. Teachers, who have been able to obtain good results under the old system, will have far wider opportunities for good work under the new conditions contemplated in the Report.

" The need for a further break in the school course, apart from that between the Infants' Department and the main school, has in recent years become more and more obvious. The older children need separate treatment just because they are older both in body and mind; they have a more independent outlook in life; they no longer require to be trained only in the general elements of education that all must master, but they also ask for an education suited to their own individual needs and capacities. If our objective is, as has been said, ' to prepare children for a life of active labour and social co-operation,' it will be an enormous advantage if we can provide for their education during the last years of their attendance at school in an atmosphere and surroundings specially adapted to their needs, not hampered by the presence of younger children needing preparation and guidance of a different type."

In 1933 the Consultative Committee of the Board of Education began work on a new reference. This was " to consider and report upon the organisation and interrelation of schools, other than those administered under the Elementary Code, which provide education for pupils beyond the age of 11 plus; regard being had in particular

to the framework and content of the education of pupils who do not remain at school beyond the age of about 16."

This omits, of course, all reference to the selective and non selective Senior Schools set up during the process of the reorganisation which followed the issue of the original Hadow Report upon the Education of the Adolescent. It assumes that post-primary education is to continue to be divided into two sections, that which is to continue under the "Elementary" Code (*i.e.* selective and non-selective Senior Schools) and that which is to be administered under some other Code (Secondary Schools of the present type and Technical Schools).

Some of the conclusions and recommendations contained in this Report published in 1938 and now commonly known as the Spens Report, regarding the curriculum for the secondary stage of education, are so important that the organiser of any school included in this group of schools must bear them in mind when devising his organisation and framing his curriculum. They are, therefore, reproduced below.

"Schools of every type fulfil their proper purpose in so far as they foster the free growth of individuality, helping every boy and girl to achieve the highest degree of individual development of which he or she is capable in and through the life of a society.

"The national tradition must be the basis of an effective education.

"The prime duty of a school providing secondary education is to cater for the needs of children who are entering and passing through the stage of adolescence, giving the pre-adolescent and adolescent years a life which answers to their special needs and brings out their special values.

"The curriculum should be thought of in terms of activity and experience rather than of knowledge to be acquired and facts to be stored.

"Both the conservative and creative elements in the activities of the community must be represented in the curriculum and a larger share must be found for those activities which are creative.

"The studies of schools providing secondary education should be brought into closer contact than at present with the practical affairs of life.

"While studies should not be introduced which are beyond the present comprehension and unrelated to the present experience of pupils, yet, especially towards the end of the course, studies may well be introduced to a limited extent which have a definite bearing on the next stage of their life.

"A 'tutorial system' should be widely tried in all types of schools providing secondary education.

" We recommend the growing practice in large schools of including on the staff a ' Careers Master.' "

With regard to the actual organisation of the schools included in the terms of reference the Consultative Committee reported as under:—

" Since the word ' Junior ' in the expression Junior Technical School has rather misleading associations, we recommend that henceforth the expression ' Technical School ' be used as a general term to describe all Junior Technical Schools recruiting their pupils at the age of 13+ and providing courses which last for two or three years. The name ' Technical School ' will thus embrace both the specifically vocational schools hitherto known as Trade Schools, which prepare for definite occupations, and those schools which prepare for a range of related trades and occupations, viz. the Junior Technical Schools for boys, bearing on the engineering and building industries, the schools designed to prepare girls for home management, and the Junior Commercial Schools.

" We have come to the conclusion that the Junior Technical Schools for boys, associated with the engineering and building industries have succeeded in developing their curriculum on a broad scientific and realistic basis, and we are of opinion that for certain types of boy the education provided by this curriculum and the practical method of approach to various subjects, *e.g.* Science, Mathematics, and Engineering Drawing, best develop their capacities, and in consequence provide the course most appropriate for them whatever occupation they may eventually choose.

" We are convinced that it is of great importance to establish a new type of higher school of technical character quite distinct from the traditional academic Grammar School. As a first step to this end, we recommend that a number of existing Junior Technical Schools orientated towards the engineering and building industries and any other Technical Schools which may develop training of such a character as (*a*) to provide a good intellectual discipline altogether apart from its technical value, and (*b*) to have a technical value in relation not to one particular occupation but to a group of occupations, should be converted into Technical High Schools, in the sense that they should be accorded in every respect equality of status with schools of the grammar school type. We recommend that such schools, which would recruit their pupils at the age of 11+ and provide a five-year course up to the age of 16+, should be called Technical High Schools to distinguish them from full-time Technical Schools of other types which provide courses for pupils beginning at the age of 13 or 14.

" We recommend that pupils should be recruited for Technical High Schools at the age of 11+ by means of the general selective

examination by which pupils are at present recruited for the Grammar Schools.

" The curriculum for pupils between the ages of 11+ and 13+ in Technical High Schools should be broadly of the same character as the curriculum in other types of secondary school of equal status.

" For pupils above the age of 13 the curriculum should be designed so as to provide a liberal education with Science and its applications as the core and inspiration. The subject matter would be English, History, Geography, Mathematics, Science, Engineering Drawing, Practical Crafts in the workshops, Physical Education and the Aesthetic Subjects, together with continued study of a foreign language for those pupils who have shown that they are capable of profiting by it.

" We strongly recommend that, wherever possible, Technical High Schools should be housed in the premises of Technical Colleges or Technical Institutes. In cases where it is not possible to accommodate the Technical High School in a Technical College, we think that it is most desirable that its buildings should be linked with the College buildings in order to facilitate full use of the equipment and staff of the college.

" We consider that a Technical High School should be organised as a department of the Technical College and with the Head Master of the school as the Head of that Department. The ultimate control of the school would be vested in the Principal of the College, who could best secure that the technical equipment of the various Departments would be available for pupils of the school, and could most effectively secure and maintain the co-operation and interest of the Heads of the specialised Departments and their staffs in the life and work of the school."

It is now possible to give a picture of (*a*) the objective of the organisation of post-primary education, and (*b*) the actual organisation of it.

Combining the recommendations of the Hadow and Spens Reports the organisation would be—

ADMINISTRATION	NAME OF SCHOOL	AGE RANGE
(*a*) Schools under Secondary and Technical Codes	(1) Grammar Schools (traditional Secondary Schools)	11 + to 18
	(2) Technical High Schools	11 + to 16 +
	(3) Technical Schools	13 + to 15 +
(*b*) Schools under Elementary Code	(1) Selective Senior Schools	11 + to 15 +
	(2) Non-selective Senior Schools	11 + to 15 +

In actual practice Technical High Schools have not been established, and the leaving age of the types of schools included under (*b*) remains 14+.

The diversity of names of the schools providing post-primary education must not be taken as an indication of a corresponding diversity of educational provision. As has been pointed out above, there are four main types of post-primary schools in operation—two under the Elementary Code (Modern Senior Schools and Selective Central Schools), and two under the Secondary Code (Secondary Schools and Junior Technical Schools). The others represent variations of these to meet local needs or prejudices.

The Hadow Committee defined the education to be given in post-primary schools in the following terms:—

" A humane or liberal education is not one given through books alone, but one which brings children into contact with the larger interests of mankind; and the aim of the schools should be to provide such an education by means of a curriculum containing large opportunities for practical work and related to living interests. In the earlier years the curriculum in these schools should have much in common with that provided in the schools at present commonly known as ' secondary '; it should include a foreign language, subject to permission being given to omit it in special circumstances; and it should be given a ' practical ' bias only in the last two years."

At an earlier point in the report it had stated that:—

" Primary education should be regarded as ending at about the age of 11+. At that age a second stage, which for the moment may be given the colourless name ' post-primary,' should begin; and this stage which, for many pupils would end at 16+, for some at 18 or 19, but for the majority at 14+ or 15+, should be envisaged so far as possible as a single whole, within which there will be a variety in the types of education supplied, but which will be marked by the common characteristic that its aim is to provide for the needs of children who are entering and passing through the stage of adolescence."

The *Handbook of Suggestions to Teachers* (1937) published by the Board of Education gives the following statement of the purpose of the Public Elementary School:—

" The purpose of a Public Elementary School is to form and strengthen the character and to develop the intelligence of the children entrusted to it, and to make the best use of the years

available in assisting both boys and girls according to their different needs, to fit themselves, practically as well as theoretically, for the work of life."

The Spens Committee's views upon the nature of post-primary education can be gathered from the following extracts:—

" But before everything else the school should provide for the pre-adolescent and adolescent years a life which answers to their special needs and brings out their special values."

" In our view a school fulfils its proper purposes in so far as it fosters that growth, helping every boy and girl to achieve the highest degree of individual development of which he or she is capable; and all that we say about the curriculum of the school is to be applied in the light of this declaration."

" Nevertheless, the national tradition in its concrete individuality must, for the reasons adduced, be the basis of an effective education."

" The studies of the ordinary secondary school should be brought into closer contact than at present with the practical affairs of life."

" Not enough is at present made of the ' utility phase ' in the development of the pupils' interests."

" We wish to reaffirm a view expressed in our Report on The Primary School (1931) in which we urge that the curriculum ' should be thought of in terms of activity and experience rather than of knowledge to be acquired and facts to be stored.' "

It will have been observed that the main differences between the various existing types of provision for post-primary education are—

(1) The length of the school life of the average pupil which is, of course, dependent upon the school leaving age for the type of school in question.

(2) The relative emphasis placed upon the different parts of the curriculum.

(3) The Code under which the school works.

The organiser of any particular type of post-primary school will have to appreciate fully all the various factors involved if his work is to be successful. Some notes upon each type of school are appended.

THE SECONDARY SCHOOL.—Here the organiser must consider how he can best achieve the educational ideals of the community taking into consideration the ability of his pupils, their past preparation, the length of the average school life, the capacity of his staff,

and so on. The following statement (published in the Spens Report) of the requirements to be fulfilled by the curriculum in Secondary Schools is worth quoting:—

"(1) It should cater for the special needs of adolescence; that is to say: it should be related to the natural activities of body and mind during that period, and both illuminate and guide the pupil's experience.

(2) It should develop and harmonise the powers of body, will, intellect, emotion and conscience.

(3) It should not consist to any considerable extent in courses which are only of value if the subjects are carried further.

(4) It should be reasonably 'all-round,' while giving full opportunity for the pursuit of individual interests.

(5) It should stimulate or create the desire to continue some form of study whether or not pupils leave school at 16."

The Report adds, "Provided these conditions are satisfied, we desire to leave as much freedom as possible to schools in the selection of studies and in their content, and in the methods of teaching, which in their several circumstances seem best fitted to produce a generation of young men and women sensitive to beauty and to moral values and trained to concentrate their attention, to think consecutively and readily, to express ideas exactly and coherently, and to exercise due caution in accepting evidence and drawing conclusions."

The content of the curriculum can be grouped in many ways, but however this is done it must fulfil the above requirements. One good grouping is as under:—

"(*a*) *Letters:* that is the use and appreciation of language, including at least some study of the native literature;

(*b*) *Art:* including Music, the most universal of the arts;

(*c*) *Handicrafts:* taught with emphasis either on the aesthetic aspect, as in weaving, carving, handwriting, or on the constructional aspect, as in carpentry and needlecraft;

(*d*) *Science:* including Mathematics as the science of number, time and space.

"To these must be added History and Geography, which appear in two-fold guise. History is in one sense literature and is read for more than the information that it contains. Similarly, Geography has a strongly marked scientific side which entitles it to a place in our fourth group. But the two subjects have, taken

together, the special function of recording and interpreting the human movement—History explaining the genesis of the present from the past, Geography teaching the dependence of men's activities upon the natural environment and their interdependence all over the globe. In these aspects History and Geography may be said to be central in the curriculum, and in our opinion are both indispensable."

Another possible basis for the grouping of the content of the curriculum is that suggested by Mr. B. Bradford in *Janus and Vesta*. He there puts forward a three-fold classification based upon the main interests of mankind.

(1) *The "questioning" interest*—typified by the scientist and by the question "why."

(2) *The "work" interest*—based upon the work of the world and typified by the craftsman.

(3) *The "human" interest*—the interest based upon mankind itself—its aspirations, relationships, etc., and typified by the "humanist."

As Bradford points out, these are not mutually exclusive interests since the scientist must also be a humanist and so must the craftsman. But each interest gives a means of correlating and unifying the group of studies centred around it and determines the bias of the course.

The Spens report gives a second classification of the content of the curriculum which it suggests may be adopted for practical purposes. This is:

(1) English, Religious Knowledge (Scripture), History, Geography, Literature.

(2) Languages.

(3) Mathematics, Science.

(4) Music, Art, Handicraft, Domestic Science.

(5) Physical Education.

"This classification must not be taken to imply that we recognise any hierarchy among these subjects by the order in which we have arranged these groups. We have simply adopted the usual practice of schools in the construction of a time-table. Otherwise, in view of the paramount part that health of mind and body play in the happiness of every individual, we should have placed Religious Education—'the education which inculcates duty and reverence'—and Physical Education, in its widest sense, in the forefront, as we have done in our analysis of the curriculum given earlier in this

Report. We recognise complete parity between the other subjects included in our groups 1-4."

With reference to the actual distribution of time between the various subjects of the curriculum there is a great variety in practice. In 1922 Circular 1294 issued by the Board had visualised two courses—the first including instruction in one language and the second in two languages. This circular was issued upon the publication of the reports of four Committees appointed to report on the positions of English, Classics, Modern Languages, and Science in the educational system. The Science Committee had asked for not less than six periods per week, the Classics and Modern Languages Committees for five periods for one language and nine for two, and the English Committee for from two to four periods. The circular examined how these recommendations fitted in with the demands of other subjects, using as their basis a week of thirty-five periods of forty-five minutes each. A time-table was produced which, re-arranged in accordance with the group given above, was as follows:—

	One Language	*Two Languages*
1. English (2-4), History (2), Geography (2), Scripture (1)	7-9	7-9
2. Languages	5	9
3. Mathematics (6), Science (6)	12	12
4. Drawing (2), Music (1), Manual Work (2) ..	5	5
5. Physical Training	2	2
Total	31-33	35-37

From this time-table the Board drew the conclusion "that the minimum claims of individual subjects (in boys' schools) can be satisfied, if at all, only if no additional provision whatever is made to meet the particular needs of individual schools," and for girls' schools that "the satisfaction of the minimum claims of all subjects represent a much more difficult, if not an almost insoluble, problem."

The Spens Committee made "a similar though more detailed analysis of the time-table as affected by what we should like to recommend, assuming for the purpose a school with a three-Form entry and a time-table of 35 periods per week, each of 45 minutes, which follows (Diagram XXXIII). In this time-table we assume that

DIAGRAM XXXIII

Experimental Time Distribution (35 Periods Weekly)

	1st Year	2nd Year		3rd Year			4th and 5th Years					5th Year
	Normal Course	Normal Course	Course X	Normal Course	Course X	Course Z	Normal Course	Course X	Course Y	Course Z	Course W	Course C
Group I English Scripture History Geography	10	10	10	10	10	8	10	10	10	8	10	10
Group II Languages	5	4	8	4	8	12	4	8	4	12	8	4
Group III Mathematics Science	7	7	6	7	6	6	7	6	10	6	4	4
Group IV Music Art Housecraft Domestic Science	7	7	4	7	4	4	7	4	4	4	8	4
Group V Physical Education	4	4	4	4	4	4	4	4	4	4	4	4
Commercial Subjects	—	—	—	—	—	—	—	—	—	—	—	8
Pool	2	3	3	3	3	1	3	3	3	1	1	1

there will be a normal course, common to all pupils for their first year, and taken in the later years by the majority of the pupils who will leave about or shortly after the age of 16. In addition we assume the provision of the following alternative courses:—

X for pupils learning a second foreign language from the second year onwards.

Z for pupils learning a third foreign language from their third year onwards.

Y for pupils specialising in Science or Mathematics from their fourth year onwards.

W for pupils learning a second language who desire to give increased attention to artistic or practical subjects in the fourth and fifth years.

C for ' non-academic ' pupils in their fifth year who desire to do some Commercial Subjects in their last year.

We have also endeavoured to leave a ' pool ' in each course to meet the requirements of individual schools.

This experimental time-table is sufficient in our view to show that our recommendations are practicable in the sense that they do not necessarily impose a heavier burden on the schools than they are at present called upon to bear."

It is stressed that this time-table is intended to be used only as a basis for experiment. The question of what constitutes a suitable time-table for any school is a matter to which the organiser must devote much thought. It has to fulfil the purpose of his particular school in the whole scheme of education, to provide the essential instruction common to all schools of its particular type, to take account of the particular needs of the locality, to have a vital connection with the future occupations and mode of life of the pupils, and utilise facilities and staff provided in the most efficacious manner.

The Selective Central School, Modern Schools, and Senior Classes.—The real distinguishing factor between this type of school and the Secondary School of the usual type is that the pupils commonly leave at an earlier age. On the administrative side the difference is that the Secondary School works under the Secondary Code and the Selective School under the Elementary Code. In many cases the Selective School tends to become a free Secondary School, and the subjects taught and the syllabuses followed tend to approximate to one another. There is a real danger lest the Selective School should try to crowd into the shorter school life the same work as is commonly done in a longer period in the Secondary School.

The three types of provision which are made for post-primary education under the Elementary Code are best discussed together since they are bound to have features in common. But it must be made clear that it is the practical necessities of the present system which make this desirable. The only really satisfactory method would be to consider all forms of post-primary education as parts of one whole.

The Hadow Committee's Report on the Education of the Adolescent differentiates between these schools and their curricula in the following terms:—

" (1) Schools of the type of the existing Selective Central Schools, which give at least a four-years' course from the age of 11+, with a ' realistic ' or practical trend in the last two years, to be known as Modern Schools.

(2) Schools of the type of the present Non-selective Central Schools, with a curriculum on the same general lines as in (1) and with due provision for differentiation between pupils of different capacities, also to be known as Modern Schools.

(3) Departments or Classes within Public Elementary Schools, providing post-primary education for children who do not go to any of the above-mentioned types of Schools, to be known as ' Senior Classes.' "

The factors which should be considered by those responsible for planning curricula for Modern Schools and Senior Classes are stated as follows:—

" (1) The curriculum should be planned as a whole in order to avoid overcrowding;

(2) it should be planned with a view to arousing interest and at the same time ensuring a proper degree of accuracy;

(3) it should be planned with a due regard to local conditions, and to the desirability of stimulating the pupils' capacities through a liberal provision of opportunities for practical work."

" For many years teachers have been aware of the difficulties created by the large number of separate subjects in the framing of a school time-table; and the tendency now, in many schools, is to regard the curriculum as a whole, and to make fewer sub-divisions. This is a principle which we would recommend to the consideration of all teachers. Its most important effect is to secure due proportion in the time allotted to, and in the treatment of, the different subjects. Beyond this, however, the observance of such a principle has many other advantages. There are subjects which share together an area

of common ground. In mathematics and science, for example, calculation is often a common feature. If the teachers concerned adopt the same methods in the use of mathematical processes, much time is saved, and confusion in the mind of the pupil is avoided. In history and geography, again, a more extended treatment, going beyond brief oral lessons, encourages work in written English. Similarly in science and geography some of the work is common, and covers the same ground. The recognition of this fact means a definite economy of time. For this reason, and in order to ensure that, wherever possible, the teaching of one subject shall throw light on another, some head teachers supply every member of the staff with copies of all the syllabuses planned by the teachers responsible in the different subjects and in use throughout the school.

"This process of unifying the curriculum extends also to the subjects themselves. Thus the term's English literature (prose and verse), composition and grammar are replaced in the school time-table simply by English; mathematics, too, is used to cover arithmetic, mensuration, algebra, geometry and, to some extent, geometrical drawing. Although there is a danger that on this plan a disproportionate amount of time may be given by individual teachers to one aspect or another, it should not be difficult to guard against this; and indeed in mathematics the various branches are already being taught together as a single subject. On the other hand, the gains of such an arrangement are many. It brings the various sides of a subject into proper relationship with one another, and in this way encourages understanding and intelligent appreciation. It enables the teacher, when dealing with one branch, to make considerable excursions into others, whenever such excursions are necessary to a clear understanding of the matter under consideration. It also enables him to vary the length of time devoted to any particular phase of a subject in order to meet the changing needs both of his class as a whole and of individual pupils. The total effect of all these arrangements is that much time is gained, overlapping is avoided, the work runs more easily, and pressure from the overcrowding of the curriculum is relieved.

"The second requirement which we have suggested should be kept in mind in planning curricula concerns more especially the individual subjects. The best results cannot be attained if the content of the curriculum is unsuitable, or badly planned, or if its presentation is uninspiring. The argument which we have urged in favour of viewing the curriculum as a whole applies in a similar way to the planning of the syllabus of work in each subject. We regard it as essential that each syllabus should be constructed as a whole before the distribution of its parts over the successive years of school life is taken in hand. The presentation of each of the successive parts should be constantly made to serve the general unfolding of the subject. In mathematics it is scarcely possible to

do otherwise, because each stage calls into play the work of previous stages. But in subjects such as history and geography attention to this principle is not readily secured. Definite provision should therefore be made in the compilation of the syllabus. To this end it is desirable to consider what kind of training may be given and what permanent ideas may be fostered by each subject, with due regard to difference of tastes among the children concerned, the general conditions affecting their outlook, and the possibility of some continuation of study in the years after leaving school. The content of the syllabus should be such as will secure this training and the formation of these ideas. The number of the ideas which it is essential to grasp in the study of any subject is not large, and the matter of cardinal importance is that the teacher should help his pupils to grasp them. The danger which confronts a teacher (and it is a danger which may even increase, in proportion to his zeal and industry) is that he should 'condescend upon particulars' to an extent which bewilders the mind he seeks to enlighten.

"Some plan of this kind ensures that the work set out shall be (1) in accordance with the pupils' capacities, (2) reasonable in amount, (3) firm and clear in texture, and (4) such as will secure something more than a passing interest. We attach much importance to this last point. An interest which stimulates the pupil's curiosity, and urges him to put forth serious efforts to acquire further knowledge, obviously leads to a steady advance in the standard of attainment and an increasing degree of accuracy and thoroughness. Once the pupil's interest is genuinely aroused, nothing but the best, according to his insight and his capacities, will satisfy his aspirations. There are few teachers who have not seen, in one connection or another, the remarkable excellence of the work which is done by pupils when the subject has gripped their imagination and aroused their interest and enthusiasm. But we would not be understood to suggest the possibility of interesting every pupil in every subject in all its aspects, or to imply that there is no drudgery to be undertaken. On the contrary we would urge the recognition of differing interests. Pupils should be encouraged to follow, within reasonable limits, any special bent which they may possess. Thus in geography one pupil may be specially interested in map work and the relation between configuration and lines of communication, another in travel and exploration, and another in meteorological observations; in history, heraldry captivates some, methods of warfare others, and changes in dress or in manners and customs others; in art one is inclined to architectural drawing, another to decorative design, and a third to sketching scenes from nature and natural objects. These excursions into different phases of a subject, so far from interfering with any essential grasp of the whole, add a stimulus and an enlightenment which bring in their train a fuller comprehension and a higher standard of attainment, together with

a degree of accuracy, care and thoroughness which is to be welcomed. Moreover, the pooling of such efforts opens up endless possibilities, and, in addition to its great moral value, leads to the production of work of the highest quality.

" The need of bringing the curriculum into relation with local conditions is being more and more felt. This is partly because, with a general lengthening of the period of schooling, it is now possible to give the instruction of older pupils a useful trend towards the occupations which await them; partly—and more fundamentally—because the nature of the educational process is better and more widely understood. Sound teaching, it is recognised, must be based upon the pupil's interests; and these, though they may in time reach out to the end of the world, begin at home in the attraction and challenge of things around him. Where this truth is neglected, a child's study of science and mathematics, of geography and history, and even of literature, may often be little better than a sterile commerce with abstractions; but where it is intelligently and skilfully applied, it may effect deeply and permanently the growth of his mind and character. Accordingly, we welcome the increasing tendency in schools of all kinds to develop differences in curriculum corresponding to the special character of the natural and social environment; and in this connection we desire particularly to call attention to the valuable memoranda which the Board has recently published with the purpose of helping country teachers to work out a type of education founded upon the occupations and natural setting of rural life.

" At the same time we must stress the point that though a child's education should be based largely upon what he sees in his parish it ought not to be parochial. It may, indeed, be maintained with much truth that he is sent to school in order that his knowledge and sympathies may not be confined within local bounds, but may be widened and enriched by intercourse with a larger world. While, then, a teacher may rightly use his pupils' studies of their surroundings to enlighten their natural affection for familiar things and to fit them to fill usefully a place in the local life, he should not stop here. These studies should be made gateways by which the pupil's understanding may pass to some comprehension of the world's variety, and of movements and achievements of the human spirit that are universal in their significance.

" We regard it as most important that the new Modern Schools and Senior Classes should not become inferior ' secondary ' schools or offer merely a vague continuation of primary education. We have already explained how the work of the older boys and girls in the ordinary school subjects will normally differ from the work of children at the primary stage, and have urged (what we now desire to reinforce) that the natural capacities and interests of the pupils, their social and natural environment, and the external

incentives to study, should all exercise a definite influence upon the curriculum."

The question of bias in such schools is one of importance. There are three groups of subjects which were used to provide such a bias:—

" (1) The industrial group for boys, in which special attention was paid to science and mathematics, woodwork and metalwork;

(2) the commercial group for boys and girls, which included shorthand, bookkeeping and typewriting;

(3) the domestic group for girls, which included cookery, laundrywork, needlework, sick nursing, elementary chemistry and hygiene."

The Report says, " When a bias towards a group of occupations is introduced in the later years of the course, it should not be allowed to dominate the curriculum or to prejudice the general education of the pupils. As we have already indicated, we are strongly of opinion that any such bias in Modern Schools and Senior Classes should be of a general character, unlike the specific vocational teaching given in many Junior Technical Schools and Junior Art Departments. Most of the employers who gave evidence were opposed to any highly specialised curriculum for pupils up to the age of 15, and several stated that they preferred that after the age of 14+ pupils should continue their general education with a slight bias only in the direction of industry or commerce. One firm of chemical manufacturers were of opinion that the education given, even up to 15+ should not prepare the pupils for any special trade, though it might be possible to provide them with a better conception of the objects and conditions of business houses and industrial concerns. A firm of retail distributors stated that in their view specialised education might commit young people, before they were capable of making a choice, to a special calling for which they might subsequently prove quite unsuitable. With these views we concur, and we think that in no circumstances should the general education of pupils in Modern Schools and Senior Classes up to the age of 15+ be sacrificed to a bias in any direction, however well adapted to local conditions such a bias may in itself be. In cases where a definite bias is introduced in the later years of the course, care should be taken to make adequate provision for the needs of such pupils as may gain greater advantage by following a more general course of study."

On this subject the Report arrives at the following conclusion:—

" Modern Schools and Senior Classes should, as a rule, give a practical bias to the curriculum in the third or fourth year of the

course. This bias should be introduced only after careful consideration of local economic conditions and upon the advice of persons concerned with the local industries. It should not be of so marked a character as to prejudice the general education of the pupils. Adequate provision should be made for the needs of such pupils as may gain greater advantage by following a more general course of study."

On the subject of the curriculum the following comments are made:—

"The school may be regarded as an ordered society in which knowledge is acquired and pupils are disciplined in certain forms of activity which have the greatest and most permanent significance in the wider world outside. Such activities seem to fall into two main groups.

"In the first place there are the moral and physical activities necessary to a proper social and individual life—religion, manners, the principles of moral and social behaviour and the care of health and bodily movement. The curriculum will accordingly comprise suitable moral and religious instruction and general physical training including the acquisition of habits of graceful movement by means of physical exercises and dancing, and the development of the spirit of team work and co-operation by means of corporate games.

"In the second place, there are the intellectual activities necessary for an understanding of the body of human civilisation and for an active participation in its processes. These may be regarded as falling into the following divisions:—

(1) Language, including literature, and the arts of writing and reading. Under this heading may be included both the study of English in its various aspects, and that of a foreign language.

(2) Geography and history, of which the former on its physical side has connections with natural science, and the latter is closely related to the study of literature.

(3) Mathematics, including the elementary study of number and space.

(4) Elementary science.

(5) Handwork, including drawing and applied art, and the various branches of practical instruction.

(6) Music.

"We now proceed to deal shortly with each of the several subjects of the curriculum.

"It is scarcely necessary to point out that the suggestions which we offer are necessarily tentative and do not in any way claim to be exhaustive."

The organiser has to consider the same factors as in the case of the Secondary School. To make his school a pale reflection of a Secondary School or to provide a syllabus which is merely a truncated or emasculated edition of the Secondary School syllabus is useless. Nor will the mere substitution of practical activities for academic studies achieve the desired end. The modern Senior School is not one in which the 2 P's (Physical Training and Practical Work) have been substituted for the 3 R's. It is a school which is the outcome of the first effort of the English nation to provide some measure of secondary education for all. That there are weaknesses in this provision is all too apparent. But skilful organisation, well chosen experiment, and a critically constructive attitude can do much to produce the maximum benefit from the present stage and to prepare the ground for the next advance. The difficulties of grasping the necessary bases for this further advance have been stated by Professor F. Clarke in *Education and Social Change* (Christian News-Letter Books).

"Our thinking should, indeed, set out from this conception. Instead of stretching an 'elementary' system and producing a 'senior' school that is something quite other than that highly selective senior school to which above we gave the name secondary, we should begin our planning with the essential problem of adolescence and adapt the earlier stages of education to the form of provision we choose for the later stage. What is happening now, however, is that inherited habit, still embodied in the existing school system, tends to intervene between us and a clear sight of the needs of adolescence as a whole. If, putting the matter at its lowest, the achievement of a genuine common culture at a fairly high level is becoming a matter of life or death to us, and if that achievement implies common norms of education in freely accessible schools, why do we hesitate? The dropping of the term 'elementary' and all that it connotes would do much to remove the scales from our eyes so that we should recognise the 'senior' school as secondary and the 'secondary' school as only one kind of senior."

After expressing grave doubts as to the wisdom of the break at 11+ and suggesting that 9 is a more suitable point of division between elementary and secondary education, Professor Clarke attacks the commonly made distinction between vocational and cultural studies. He says:

"The maintenance of this distinction, tracing its descent from a slave-based economy, can be no longer tenable in a modern industrial democracy where (1) all are to be 'free'; (2) freedom

itself becomes increasingly dependent not only upon technical mastery but upon the humanisation of techniques. It is necessary that the working social philosophy should include within itself both an understanding of the techniques themselves, in the proper scientific sense, and an intelligent idea of the appropriate subordination of each to the common social purpose. The choice lies between a world which, like Aldous Huxley's 'Brave New World,' has surrendered its hold upon real culture in order that it may apply techniques to the more exquisite satisfaction of animal appetites, and a world which adapts its techniques to the enrichment and wider dissemination of a growing contemporary culture. To any vital and organic society its vocations are structural, not accessory. Slave-based societies fail because there is too little interpenetration of culture with vocation. Culture is sustained in such societies not by the significant and contributory vocational activity of those who share the culture but by technical contributions of a slave-class or proletariat which is largely excluded from it. Where integration is satisfactory a culture may indeed be known and recognised by its vocations, as we understand the Middle Ages or the culture of a long-vanished society by examining the memorials of craftsmanship that its workers have left.

"So least of all can an industrialised democracy afford to countenance so fatal a dichotomy. The compromise which English aristocratic humanism worked out between the classical curriculum and the vocations of ruling is not applicable to such a society. It needs something more modern, more relevant, more direct, and above all less vitiated by class influence (a proletarian prejudice is as much to be condemned in this connection as an aristocratic one).

"Experiments in the working-out of 'trial forms' of such a desired transcendance may fall to the lot of various institutions in England. Thus—

(*a*) A suitable exit-ramp from the senior school needs to be constructed. Where conditions are favourable, the senior schools are already relating their work quite intimately to the dominant vocational activities of the neighbourhood, and in many cases their curricula well repay study as examples of attempts at vocationalised-culture or culturally-interpreted vocation, whichever way we like to put it. But this in itself is not enough. The blade still lacks its cutting edge. In present circumstances the edge may be either not put on at all, or put on in a fashion which damages the cultural substance of the blade. So we need a well-diversified provision for 'junior technical education' appropriately related to the needs and attainments of pupils as they leave the senior school at 15.

(*b*) The technical high school as proposed by the Spens Committee needs to be established at first in the limited form which the Committee suggests. It will have to be ready to stand up to some

prejudice on the part of those who have no understanding of its purpose and no sense of the urgency of the need for it. So a struggle may be involved in giving it a fair chance in its own field, neither pushed into a 'workshop' corner, nor treated as a mere variant of the grammar school. It must be *sui generis*, the bearer of the burden of an urgent social experiment as well as a pioneer type of school.

(*c*) With increasing understanding of the needs as the changing social-economic situation develops, the whole system of technical education can come under review with an eye to the more effective co-ordination of its parts and more precise definition of its relation to the 'ordinary' schools.

(*d*) The 'ordinary' schools, especially in the later stages, will, in their own courses, set themselves increasingly to the integration of vocation with culture. The necessary freedom is already secured. In the existing 'elementary' schools the will is present and understanding of procedure grows. The 'secondary' schools, embarrassed heirs of another tradition, move more slowly and with misgiving. But they are moving, in some cases moving so fast as to convince themselves that they can take care of the whole vocational need of the pupils, sharpening the blade as well as forging it. If such an idea is really held to any considerable extent it may well prove harmful."

The only test which should be applied to all parts of the content of the curricula is that of *Relevancy*—the relevance of material.

"Relevance of material—that is, in relation to aptitudes of pupils, needs of social well-being, and especially to the conditions determining freedom in a modern industrial democracy.

"The most momentous example of such testing is that which the traditional classical curriculum must undergo. Large volumes would be needed for an adequate treatment of this issue. Here we need only note that representatives of the tradition are not as a rule themselves well placed to apply the test with objective dispassionateness. They would find it difficult to shake off the influence of associations of this particular curriculum with class-supremacy and they still tend to accept uncritically, and even with a certain unction, the belief in knowledge for its own sake. Sometimes they are deficient in generous and responsive social sense and in understanding of the contemporary situation, while a perfectly genuine and not ungrounded fear of vulgarity and the cruder form of blatant utilitarianism often frightens them into obscurantist conclusions.

"It is society at large that will have to decide the issue, and there appears to be not much doubt what the decision will be.

This curriculum does not meet the contemporary tests of relevancy sufficiently well to justify the retention of its dominant position. In the first place, the claims for a common culture are too insistent, and for the great mass of the population the classical curriculum is quite without relevancy, except in so far as in the courses in English and history provision is made for intelligent study of the ancient inheritance. Then the thrust towards a new and more comprehensive, if not highly equalitarian, form of national unity will tend to become irresistible, bearing down in its progress the social barricade of which the old studies provided so much of both the decoration and the substance.

"And finally the requirements of a technical age cannot be gainsaid, especially as they can be met, if wisely handled, with profit rather than with loss to culture, while the atmosphere of a technically planned society will prove uncongenial to studies which have so strong a savour of a feudal order. The ancient languages and literature will still be the subject of specialised study by selected pupils. The secondary school course should acquaint all pupils alike with some of the literature in translation, and those who plead that Greek rather than Latin is the more relevant study for these times may well prove justified. But the full classical curriculum in its old form seems destined to lose very soon its place of predominance.

"Towards the field of 'technical' curricula suspicions will be directed and will have to be watched. Already there are suggestions that the technical high school is unwanted, as the secondary school, it is argued, can, with a little adaptation and a little co-operation with existing technical colleges, do all that is necessary and without any risk to culture. This is one danger. The converse one may take the form of an attempt to assimilate the new type of school to the grammar-school type, just as the new secondary schools after 1902 were assimilated to the public-school type. These dangers are by no means imaginary. In so far as they continue to threaten, the true significance of vocation in this modern society has not been grasped.

"So the courses of the new technical high schools will need to be drawn with courage and imagination and with a clear and single eye to relevancy. Buildings, staff and equipment must take form accordingly and then, if necessary, the new citadel must be defended with all resolution.

"One main-spring of danger, all along the line, is undoubtedly a dogmatic and over-academic orthodoxy, occasionally so ingrown as to be quite incorrigible."

It is the development of this new curriculum, which is at one and the same time cultural and vocational, which is the urgent necessity of post-primary education in England to-day.

Junior Technical Schools.—"In 1913 the Board issued Regulations for a new category of Junior Full-time Schools to be known as Junior Technical Schools. These were Day Schools, providing courses for boys and girls during two or three years after leaving the Public Elementary Schools, in which a continued general education was to be combined with a definite preparation for some industrial employment at the age of 15 or 16. After prolonged consultation with representatives of Local Education Authorities and teachers in Technical Institutions the Board drew up Regulations which came into operation as from 1st August, 1913, under which Junior Technical Schools might be detached for administrative purposes from the other somewhat miscellaneous full-time or part-time courses aided under Article 42 of the Regulations as Day Technical Classes, and encouraged and strengthened by means of increased grants. These schools are definitely intended to prepare pupils either for artisan or other industrial occupations or for domestic employment. Under the Regulations the Board required that each course should cover not less than two or more than three years and should occupy the whole time of the pupils during not less than 36 weeks of each year. The courses are normally planned to provide for pupils leaving the Elementary Schools at the age of 13 or 14. The staffs of these schools contain a reasonable proportion of members who have had practical trade experience of the occupations for which the individual schools furnish a preparation, and the establishment of advisory bodies containing representatives of employers and employees in those occupations is encouraged with the object of bringing each school into close touch with the industry to which it is related."

"Its purpose is to give a course of instruction of two or three years for children who have previously attended elementary schools, and the curriculum is planned to continue the pupil's general education and at the same time to provide a special training for entry into some particular occupation or group of occupations. The recognition of a school of this type by the Board normally depends in part on the existence of such relations between the Local Authority (or Governing Body) and neighbouring employers in the occupations in question as affords reasonable assurance that pupils will find appropriate employment on completing the course. Hitherto, these schools have aimed at not turning out more pupils than can be absorbed by the local industry or group of industries for which each several school affords a preparation. The normal age for admission has been 13, and the course has ordinarily lasted for two or three years. In a number of girls' schools pupils enter at the age of 14 and take a two years' course. Hitherto, the Board has required that the course should be planned as a preparation for employment upon its completion, and not as a preparation for further full-time instruction. The Board has also required hitherto

that a reasonable proportion of members of the staff should possess practical trade experience of the occupations for which the school furnishes a preparation."

" The existing Junior Technical Schools fall into two groups. In the one group are those schools (the Trade Schools) which are frankly and definitely preparing their pupils for entry into a specific occupation within an industry. They aim at continuing and enlarging the general education of their pupils and also at developing a substantial measure of personal skill in the processes of the occupation for which these pupils are being prepared. As a rule about one half of each educational week is devoted to general education and the other half to the acquirement of the particular craft or skill. It should, however, be noted that the number of school hours per week is greater than in other types of secondary school and that the general educational content is accordingly more extensive than would appear on a first view. These Trade Schools recruit pupils at the age of 13+ and as a general rule provide a two-year course. They are almost confined to the London area and till recently they were known as ' Trade Schools ' though the London County Council now describe them as ' Junior Technical Schools.'

' In the second group of Junior Technical Schools the outlook and the educational provision are different. Their aim is to provide an educational foundation and background for those pupils whose broad intention is to enter industry on leaving school about the age of 16. The object of these schools is to provide a wide and general education which will enable their pupils to adapt themselves to whatever conditions they may meet and upon which they can build their further education in more specialised directions according to the branch of industry and the form of occupation which they select.

" It is desirable at this stage to point out that there is a great difference between the deliberate preparation of a pupil for entry to one specific occupation or trade within an industry and the provision of an educational foundation for entry to an industry or group of industries, within which there are many occupations and trades. The great industry of engineering is an example which may best be taken because of the fact that most of these Junior Technical Schools have drawn up their curriculum with entry into engineering as the broad objective of their pupils. The engineering industry is many-sided. Its main groups are civil, marine,.mechanical, electrical, aeronautical, automobile, railway and shipbuilding. Each group has various branches and within each group or branch there are many different occupations, manual, mechanical, scientific, artistic, technical, administrative and commercial. The field is therefore very wide and the Junior Technical Schools based on the engineering industry provide the broad educational foundation

suitable for the pupil whose intention is no more definitely expressed than by his saying in effect, ' When I leave school, I think I would like to be an engineer of some sort.' "

The Spens Report gives the following as an average allocation of subjects in terms of hours per week in school week of 27½ teaching hours:—

" English Subjects ..	6 hours
Mathematics and Science	8 hours
Workshop	4½ hours
Engineering Drawing (including Practical Geometry)	3 hours
Physical Training and Aesthetic Subjects	3 hours
Pool	3 hours
	27½ hours."

The proposed development of Technical High Schools has already been referred to and their function indicated.

This brief survey of the provision for post-primary education indicates the problems confronting the organiser of any of the types of schools found within it. He has to essay the task of participating in the creation of a cultured and efficient democracy, and the only ultimate test of his organisation is the measure of his success in attaining this aim.

CHAPTER X

ORGANISATION—SPECIAL SCHOOLS

THE last two chapters have dealt with the organisation of schools for normal children. There remain the schools known collectively as " Special Schools "—those established for the education of children who by reason of some defect, either physical or mental, cannot be educated in the ordinary normal schools. It is clear that such children present special and difficult problems to the organiser of a school system, and a similar problem to the organiser of the Special School. For the administrator the first problem concerns the diagnosis of the defects, and the treatment of border line cases. Then arise questions of transport and escort, whether residential or non-residential schools will best meet the case, the provision of suitable accommodation and equipment. The organiser of the Special School has to consider the effect of the disability suffered by his children, and their capacity to achieve the general aim of the educational system, and what modification of the aim is necessary in their case. Then arise questions of technique, which must be based upon a consideration of how most profitably to employ the normal qualities of the children and how best to overcome the specific disability. The content of the curriculum will have to be varied, so will its balance and emphasis. In such schools there is above all else a need for a careful estimation of the child's powers and disabilities, with a view to utilising the first to the full and of diminishing the adverse effect of the latter. Children with defects are often sensitive about their defects, and the need for establishing self-confidence is evident. The need of finding methods of education which will restore and strengthen their confidence is apparent. Again, there would be general agreement to the statement that everything that is possible should be done to make such children live full and happy lives. But this does not mean that every difficulty is to be removed from their path. To do this would only mean a postponement of the time when difficulties have to be faced and overcome, or be surrendered to. The organiser of any kind of Special School has to possess an unusual degree of sympathy and imagination.

The legal position with regard to defective children is stated in Section V of the Education Act of 1921. The obligation which rests upon the parents of all children of the appropriate ages to see that their children receive efficient elementary education is extended

in the case of the parents of blind or deaf children. Such parents must ensure that the education received is suitable to the child, and distance from a suitable school cannot be pleaded as a reason for not fulfilling this obligation. The Local Education Authority has the duty of enabling blind and deaf children ordinarily resident in the area under their control to receive suitable and efficient education in some school certified by the Board of Education as providing such education. If defective or epileptic children attend a recognised school or class in their own area then the parent may have to provide transport and a guide to and from the class or school. If there is no such provision within the Authority's area it is the Authority's duty to make arrangements whereby accommodation can be placed at its disposal elsewhere. The Authority has placed upon it also the obligation of making arrangements for ascertaining those children within its area who, not being imbeciles, are incapable of receiving proper benefit from the instruction given in ordinary public elementary schools, but who are not incapable, by reason of that defect, from receiving benefit from instruction in such classes or schools as may be provided for defective children. The same double duty of ascertainment and provision of facilities is laid upon the Authority with respect to epileptic children. In each case " ascertainment " means the obtaining of a medical certificate given by a medical practitioner recognised for the purpose by the Board of Education. It has been indicated that the provision made for such children may be by means of a Special School, catering only for such children, or by means of Special Day Classes established in Public Elementary Schools and certified by the Board as special classes for such children. The schools may be residential or day schools; often they are partly one and partly the other.

Originally the obligation upon parents to provide suitable instruction for such children commenced at the age of 7. In 1937 this age was lowered to 5, in accordance with the view of those who had the task of educating such children that the earlier sound training started the better it was for the child. The obligation for the child to attend school continues until the end of the school term in which it becomes 16.

In order that a school may be certified by the Board as giving suitable education for defective children it has to be:

(*a*) Not conducted for private profit.

(*b*) Managed by a Local Education Authority, or alternatively to have its accounts audited and published in accordance with the Board of Education regulations.

(*c*) Open to inspection by His Majesty's Inspectors and visitors authorised by any Local Education Authorities who send children to it.

(*d*) Satisfy the requirements of Part IV of the Education Act of 1921.

When an Authority sends its defective children to a school in the area of another Authority, the sending Authority is liable for the cost of maintenance of such children, and the parents are liable to be called upon to make a contribution towards this cost.

There are, unfortunately, many types of defect which make education in an ordinary school unsuitable for those children who suffer from them. Total blindness and complete deafness are obvious cases. So, too, epilepsy and mental defect (not amounting to imbecility) need special educational treatment. Children suffering from some forms of defective vision which fall short of complete blindness cannot be dealt with in ordinary schools, neither can those with some crippling defect, heart disorder, or tuberculosis. In some cases the defect is temporary and will disappear under treatment. This is particularly the case where children are unable to profit by the education given in ordinary schools because of general weakness and debility due to long continued ill-health. For such, that type of special school known as the Open Air School is doing excellent work. The regular meals, sleep, and open air life by which the children benefit at such schools enables them to return after longer or shorter intervals to their old schools, ready to take up work in the normal school without undue strain.

The Board of Education publishes List 42 which includes all schools certified by the Board under Part V of the Education Act 1921, for the education of blind, deaf, mentally defective, physically defective, and epileptic children. In this list the schools for physically defective children are classified with a view to indicating the particular type or types of case for which each school provides. Such a classification, however, cannot be watertight, since it is often found that a child may suffer from more than one defect. The Board classifies the various types of schools as follows, and this classification indicates the various defects from which provision is now made:

(1) Schools for cripples, *i.e.* for the education of children suffering from crippling defects for which no specific hospital treatment is provided.

(2) Hospital Schools for the education and treatment of children suffering from crippling defects due to non-pulmonary tuberculosis and other causes.

(3) Schools for the education and general care of children subsequent to the surgical treatment of crippling defects.

(4) Open Air Schools for the education of delicate and debilitated children.

(5) Schools for children suffering from heart disease.

(6) Sanatorium Schools for the education and treatment of children suffering from tuberculosis (mainly pulmonary).

(7) Miscellaneous. These schools make provision for diseases of the ear, eye, and skin.

The list also contains the particulars relating to Institutions, Schools, and Classes recognised by the Board as providing secondary education for blind, deaf, defective, and epileptic children. It also contains a list of recognised Nursery Schools since these, too, are still classed by the Board as " Special " Schools. The day has not yet arrived when these schools will be recognised as part of the normal provision of education, but it is approaching as the need for sound Nursery education becomes more fully realised.

There are some Nursery Schools for blind children, and the following details are quoted at length as being typical of the spirit in which the special schools should be organised. These undertake the upbringing and education of blind babies from birth to school age. As the organisers of these schools state:—

" All experienced teachers of the blind would agree that even for the brightest blind child from the best of homes, the eleven years set apart for compulsory and formal education are all too brief. If the first months, or even years, of this period have to be devoted to the slow task of building up the child's general health, teaching him habits of personal hygiene, encouraging him in ways of self-reliance and self-help, overcoming timidity fostered by the excessive caution of his elders, correcting mannerisms which should never have been allowed to develop—and, in brief, training him to be blind, the time available for his formal education must be inevitably curtailed and he must suffer accordingly."

The following indicates the organisation of these schools:—

" Each of the Homes has its special characteristics, but the principle governing them all is the same—to build up children who shall be physically and mentally equipped to take the fullest advantage of school-life when formal education begins. Because the ideal environment for the young child is the home, the Sunshine Homes are run as nearly as possible on the lines of a private household. The number of children received is small enough to ensure that

they receive that individual care which is so important a factor in happy childhood, and that they may develop as ' persons,' ' each counting for one, and no one for more than one.' A child needs the comforting assurance that the grown-up people about him are protective, and that he is never alone in a bewildering environment. There must be around him an atmosphere of calm against which his petty passions may spend themselves in vain, and this atmosphere can often be more easily secured in a Home, where the staff are not emotionally concerned with his childish outburst, than in the small living-room of a crowded household. Blindness at best must always impose a strain upon the nervous system, and it is therefore specially necessary that the little blind child shall live in surroundings where the rules of a well-ordered nursery obtain. There must be ample time for rest in quiet surroundings (a matter all too often overlooked, and sometimes quite impossible in poor and crowded homes), a carefully planned dietary, and suitable encouragement for intellectual growth and character-training, with abundance of fresh air, and sunshine. The Sunshine Homes are set in gardens, and the children live out of doors as much as possible.

" Many of the children admitted to the Homes are suffering from debility, from muscles that are flabby from lack of exercise, and even from serious orthopaedic defects. An orthopaedist examines the children every six months, and a masseur visits each Home twice weekly and gives remedial exercises under medical supervision where these are prescribed. Careful medical oversight of the children's general health and regular dental inspections are features of each Home."

The work carried out is described as follows:—" Independence of movement is encouraged, and the children learn to run fearlessly about the house and gardens, often gaining confidence at first through the use of big pushing toys on wheels. Gymnastic apparatus such as the climbing frame, balancing board, and wall-bars are greatly enjoyed, and many become intrepid climbers. Sand pits and paddling pools give great pleasure, and the children at Southport are able to play on the shore. Of those at Leamington, a recent report ran: ' A paddling pool was built, and it was a delight on warm days to watch the pleasure of the children, kicking, splashing, and jumping in the water.' A new schoolroom of the most airy and modern type has recently been build at Leamington, and in all three Homes much of the teaching is carried out in the open air.

" Enough has been said to show that the preparation of blind children for school life is something that is a continuous process, by no means confined to the schoolroom, but occupying each moment of the waking day. Every effort is made to avoid the dangers of segregation and institutionalism by giving the children those contacts with the outside world that are part of the home life of

the normal child. Butcher and baker, postman, gardener, and cook all go to form part of the pattern of the babies' lives, and occasional journeys by train, coach, omnibus and tram, visits to shops and farms, the care of flowers, plants and pets to help to break down the wall that tends to cut off the blind child from the life of the world around him.

" Although children may be received at the Sunshine Homes from earliest infancy, their schoolroom life begins at the age of three, but there is no attempt at formal instruction at any age. The teaching given is a response to the child's own questioning attitude; free activity, rather than the use of formal apparatus, is found to give the best results, especially in the case of the younger children or those who are mentally retarded. ' With free activity,' writes a teacher in one of the Homes, ' the child's whole being is stimulated. He works with great concentration and zeal, for his task is self-chosen.' The Homes are fortunate in having an educational adviser of great knowledge and experience in nursery school methods, and her oversight of the work carried on is an incentive to the teachers in each of the three Homes to develop experiment and research in this important and hitherto little-explored field.

" While it is not possible here to describe the curriculum at length, the following skeleton outline may be of interest:

" **General Educational Aim.** To stimulate the desire for independence, self-reliance, and thoughtfulness for others. Among the means adopted to carry out this aim, the following may be noted: free movement in house and garden, instruction in dressing and undressing, training in habits of personal cleanliness, the putting away of toys and tidying up of schoolrooms, knowledge of home life obtained through visits to kitchen and laundry, washing of dolls' clothes, making of cakes, shopping excursions.

" **English.** Encouragement of free conversation, exercises in language and speech-training, learning of nursery rhymes, story-telling, and dramatising, preparation for reading and writing for older children.

" **Scripture.** Simple talks and hymns.

" **Music.** Learning of nursery songs, simple rhythmic expression, singing games, musical appreciation through listening to gramophone records, wireless, and taking part in percussion bands.

" **Handwork.** Free use of toys (dressing and undressing dolls, use of pushing toys, learning to steer tricycles), building with bricks, sand games, bead-threading, modelling in plasticine, fastening and unfastening buttons and tapes, learning to use hammer and nails, games with sense-training apparatus.

" **Nature Study.** The care of pets, care of plants and arrangement of flowers, nature talks on birds, animals, and plants.

" **Number.** Development of sense of number by counting toys, playing at shop, and counting games.

" **Physical Training.** Training in free and fearless movement, with walking, running, jumping, and skipping. Suitable exercises on climbing frame, wall-bars, and balancing board, various running games."

It must always be remembered that a disability in a child may affect his or her development in a variety of ways. If, for example, a child has a crippling defect this may mean much more than an inability to participate in the more active side of school life. It may effect mental development, and it will most certainly affect emotional development. There is a tendency to forget that the child is a unit, and for the different adults with whom he comes into contact to consider only one aspect of him. So the parent sees him one way, his teacher another, and the School Medical Officer another. If he is emotionally disturbed and has to attend a Psychological Clinic a Psychiatrist sees him another way, and if he gets into mischief the Probation Officer sees yet another aspect of him. Yet all the time he is the same child, and this false division may easily lead to wrong diagnosis and treatment. It is for this reason that the closest co-operation and collaboration is necessary between all those whose work it is to deal with one or other aspects of the developing child. This unitary view of children is essential when they are normal; if they are not normal, if they are defective either physically or mentally, or if they are emotionally disturbed, then it becomes the prime necessity.

This brief review of the purposes of the various types of special schools would not be complete without some reference to Home Office Schools and the provision made for dealing with delinquent children. For it is obviously true that delinquency arises largely from defective social environment and education, and also is often connected with mental defect and occasionally with physical defects. There are four methods in use with regard to delinquent children brought before Juvenile Courts. They may be:—

(*a*) Placed upon probation.

(*b*) Boarded out.

(*c*) Sent to a short term residential school for a period of from six to twelve months.

(*d*) Sent to a long term residential school.

When placed upon probation the young delinquent has to report at stated intervals to the Probation Officer who in general supervises his out of school life. For this to be effective co-operation is needed between the Probation Officer and the home, and also between the Probation Officer and the school. It is also necessary

that the Probation Officer should have at his disposal facilities in the way of clubs, etc., to which he can introduce his charges. The Probation Officer must be a man or woman having an understanding of and sympathy with children. In certain cases this method of treatment is efficacious.

The " boarding out " method is one which is peculiarly suitable for younger children. Its success depends in the main in the selection of suitable foster parents with whom to board out the children. The cases which are most satisfactorily treated by this method are those of young children brought before the Juvenile Court as needing " care and protection," and those where, whether through poverty or adult vice, the original home is an unsuitable environment in which children should grow up. Often the complete change of environment and the care bestowed upon the child by the foster parent result in a disappearance of the original trouble. The home to which the child is sent should be sufficient distance from the old home to prevent repeated visiting. Sometimes there is difficulty in getting the child to " settle down " in a new home, and patience is needed in the early stages. The child has to acquire new ways of life and new interests, and this is not an easy task.

Children under ten should be sent to Approved Schools only under exceptional circumstances. The short term schools are for those cases where a comparatively short period of training and supervision appears necessary; the long-range ones cater for the more obstinate cases. Most of these schools have a vocational bias, and the education given has in view some definite occupation in after life. The methods of instruction and of maintaining discipline have greatly improved in the majority of such schools in recent years, and the boys and girls who attend them turn out well in many cases.

This problem of the treatment of the problem children is receiving increasing attention. Many Juvenile Magistrates call for a report by a Psychiatrist or Psychologist in difficult cases and endeavour to give effect to the view that it is remedial treatment rather than punishment that is most needed. Much progress remains to be made, but this branch of the provision for education is full of promise. It is clear that the State, with the duty of providing adequate education for all children, must not omit its delinquents and defectives from its scheme.

CHAPTER XI

THE TIME-TABLE

THE lecturer had been advocating a new method of approach to some portions of the Junior School curriculum. At the end of the lecture a member of the audience emphasised some difficulties in putting the suggestions of the lecturer into operation. " I take it," replied the speaker, " that your main difficulty lies in the fact that you have a time-table." " That is so," agreed the questioner. " Then," retorted the lecturer, " the only thing to do is to scrap the time-table."

A time-table is essential; it is one of the necessary tools in the hands of the organiser. But it is emphatically only a tool and must never be allowed to dictate procedure and methods. A time-table, rigid in its construction and mechanical in its operation, can reduce a school to a static, lifeless, skeleton of what it should be, devoid of all that goes to make it fluid and dynamic.

Essentially the time-table shows two things. In the first place it indicates the activities with which the school is concerned and in the second place it indicates how the available time is divided between these activities. This implies a consideration of values throughout. A selection of the activities available has to be made —the inclusion of one may mean the exclusion of another or the curtailment of the time allocated to it. To include a new activity in a time-table by taking one or two periods previously allowed for other subjects usually results in an unsatisfactory time-table. It is necessary to consider first the objective of the school, and then to decide upon the activities which are essential towards the achievement of this aim. Usually these can be graded into groups from those absolutely essential down to those desirable but not essential. The activities themselves and their order in the scale of values will vary from school to school and from age group to age group. They will not be the same in an Infants' School as in a modern Senior School; nor will they be the same for eight-year old children as for those of fourteen. Selection there must be, first among the activities themselves, and secondly amongst the sub-activities included in the whole. No child can ever learn everything about everything. Gaps in his or her knowledge there must be. The object of instruction should be to present essentials in as coherent a form as possible, and to develop the will and method whereby the

gaps can be filled if circumstances require it, and opportunity permits it. This is particularly true in such branches of learning as history and geography. It should be noted that the case is not the same with regard to arithmetic. In arithmetic it is necessary to consider the stage to be reached and the processes to be acquired. In history or geography the extent of the ground covered must vary inversely with the intensity with which each section of the field is treated. The whole field cannot be covered in all its width and depth.

The first stage in the construction of a time-table is, then, a determination of the activities to be included, regard being had to the purpose of the school. The next stage is to determine the extent of the work in these activities which can be carried out during the whole of the school life of the child in the particular school under consideration. Here due time must be allowed for revision and " browsing." One of the main criticisms of elementary education in the past has been its speed. There has been no " letting up," and no time in which the young student could " stand and stare." School life was so short and there was so much to teach. And so a hurried pace seemed essential and undue pressure ultimately defeated its own object. When the school leaving age is raised it will be a grave mistake to see in it merely the chance to add another year's work to the existing curricula. Rather should it be viewed as an opportunity for deepening the whole curriculum and of providing an opportunity to move at a pace more in keeping with the child's speed of development, and so one in which the acquisition of facts shall be replaced by the development of a cultured personality. So the work of any school in any activity should be well within the scope of children of the age range concerned.

The main activities and their extent being decided, the next step is to divide the work to be covered between the various years. In general, a Junior School has a four-year range, a modern Senior School one of three years, a Selective Central School one of four years, and a secondary School five years. But simply to divide the total volume of activities to be carried out into three, four, or five equal portions and to label each one year's work may be simple, but it is not educational. In one year there may be need to pay more attention to one subject in view of the fact that it is particularly suited to children of the particular age concerned. In another year another subject may be of greatest importance. These factors all require consideration, and a satisfactory division of the school's activities into years of work can only be made when they are given full weight.

It is customary for the activities to be further divided into term's work. Some schools work on a three-term year, and others on a four-term year. Whichever plan is adopted, the division into term's work should be as natural a one as possible, and should be largely one for the class teacher to make. Watching the development of the class, the teacher may find points at which intensive work on some activity or section of an activity will reap a rich reward, while at other times apparent neglect may be equally efficacious.

From the term's work, both the activities to be carried out and the time to be allocated to each, the actual time-table is constructed. Not long ago every time-table was a five-day one, *i.e.* it repeated itself from Monday to Friday in successive weeks. Nowadays it is common to find time-tables based on a six day or seven day week, and examples of each type are to be found in the specimen time-tables which are attached to this chapter. The six or seven day time-table has certain definite advantages. It permits longer periods and hence less waste of time and energy in starting and finishing a lesson. Further, Monday morning takes on a variety instead of commencing once more the usual round.

The activities and the time to be allocated to them having been decided, it is next necessary to consider at what place on the time-table they should be put, whether in the morning or afternoon, early in the week or later in it. Generally speaking, it is usual to place the acquirement of skills and the more formal work in the morning session and to reserve the afternoon for the freer activities. In all this it must be remembered that the construction of the time-table and the form which it takes is bound to exercise a great influence upon the developing child, although this influence is entirely an unconscious one. The succession of activities through the day, and day by day, will inevitably produce rhythm and order in his life, or the reverse. A well thought out and carefully constructed time-table will give him that secure background which is so essential a feature in the child's environment. On the other hand a capricious time-table, one drawn up with thoughts only of getting in all the "subjects" somehow, will lead to irritation and a disjointed existence.

The best modern practice endeavours to avoid the rigidity which was characteristic of the schools of a decade or so ago. This movement has been accelerated by recognition that it is active learning by the child that is the centre of the educational process. To take a given amount of subject matter, to divide it into term's work, week's work, and work of a period, and to insist that a

certain amount is to be taught in a given time is to concentrate upon the teacher's activity and not the child's. It makes a number of unwarranted assumptions. First of all it assumes that teaching and learning proceed at the same rate, and that the teaching is 100 per cent. effective. In the second place it assumes that all the children travel at the same mental pace. It is obviously impossible to include such an amount of work that only the more intelligent children can cover it. If the amount of ground to be covered is that which the average member of the class can do, then some children are acquiring a habit of never fully exerting themselves while others are always over-exerting themselves. The formation of groups within the class is one method of minimising this difficulty, to which much thought needs to be directed. The "covering of a syllabus" should always be subsidiary to the facts of the development of the children concerned.

On the other hand, to pay attention only to the learning process of each individual child is to attempt the impossible under existing conditions. It would mean a different scheme for each child. A balance has to be struck somewhere between the two points of view; first, that a certain amount of subject matter must be taught and learned, and that this means a certain amount of class instruction, and secondly, that the individuality of children demands a separate rate of progress and distinct treatment for each. This is one of the problems that some modern methods have been devised to solve. The Dalton Plan, for example, takes the usual subject matter and devises a technique whereby each child moves at its own pace. It assumes that the choice of subject matter by the adult is satisfactory. The technique of teaching it is replaced by one of learning it. Other modern methods aim at changing the subject matter as well as the technique. The Decroly Plan is one such method. Working from centres of interest of the children, the actual field covered will clearly be different from that covered by a pre-established scheme of work. And the method is individual.

This matter of the time-table is a vital one for all organisers of schools, for it is the time-table that supplies the framework within which the work of the school proceeds. It is the instrument through which the purpose of the school is to function. It may have a deadening effect on the life and purpose of the school, for it may exercise the power of tradition over both the subjects of the curriculum and the method by which they are presented. On the other hand, it may be fluid enough to permit of variations within a broad framework and of experimental work when desirable. A time-table should be subject to continual revision. It should never

be accepted as a fact, but always considered critically in the light of the particular factors operative in the school for which it is devised.

There are a number of problems concerned with time-tables which are still unsolved. Those concerned with the preparation of time-tables should ponder over them and where possible endeavour by carefully devised experiments to work towards an answer to them. It is so fatally easy to prepare a neat and "tidy" time-table; one which satisfies all the formal requirements, and one which produces a neat and "tidy" school. But it may omit the one thing necessary—a consideration of those facts of child development which affect his learning process. The problems to which reference has been made can be simply stated. It may be necessary for the time being to accept the conventional answers to them, but the thoughtful teacher will be always on the alert for the real answer. The questions are:—

(1) Are we satisfied that the existing subjects and activities included on the time-table are necessary?

(2) Are we satisfied that there are no other subjects or activities which should be included?

(3) Is the curriculum expressive of the culture and needs of the age, or is it expressive of the culture and needs of a past age?

(4) Are the different skills and techniques taught at the correct age? Is there an age when they could be taught with less expenditure of time and energy?

(5) What is the right balance between skills and activities, and what is the relationship between them? Should the teaching of skills precede their use in activities, or should it grow from a need of them in activities?

(6) How can the time-table preserve a proper balance between the demands of class teaching and individual needs?

There are, of course, many other questions. Each improvement in the technique of teaching makes it necessary to devise new instruments for its use. At present time-tables do not in general give expression to some of the most promising results of educational research. The great need is for fluidity in the time-table, which seems always to tend to be the most static of things. Longer periods which can be divided between different activities by the teacher according as circumstances demand is one line of approach. An avoidance of minute distinctions on the time-table is another. But above all, the teacher must realise that the time-table is but

an instrument—to be used as circumstances demand. It must never be allowed to become a procrustean bed—crippling into dull uniformity the life of the school which is forced into it.

Some typical time-tables follow. It is not claimed that these are model time-tables or even that they represent the best time-tables in existence. They are all in actual use. They come from Special Schools (Schools for the Deaf and Open Air Schools), Selective Central Schools, Senior Schools (Boys, Girls, and Mixed), Junior Schools (Boys, Girls, and Mixed), combined Junior and Infants' Schools, Infants' Schools with Nursery Classes, and a Nursery School. The accommodation and attendance and staff of each school is given in the table which precedes the time-tables, since these factors obviously determine the work of the school.

Before discussing these, a time-table devised to meet the special needs of a special group of children is given. It is of interest because it shows how new problems led to a consideration of the whole time-table, with a result which proved beneficial to the school and boys. The student can find full details of this experiment and the process of it in a volume entitled *Educational Needs of the 14-15 Group*, by Mr. A. Greenough, B.Sc. The school in which this pioneer work was carried out is a Senior Boys' School situated in an area in which the school leaving age was raised to 15, with exemptions on obtaining beneficial employment some seven years before the 1936 Act (now suspended) was passed. The effect of this by-law was to raise the average school leaving age in the area in question from 14 years 1½ months to 14 years 4½ months. It presented each Senior School in the area with the problem of a group of children who might leave at any time, but who might return at any time if their employment ceased and they had not attained the age of 15 years. So far as the curricula and time-tables were concerned, the problem was how to ensure as continuous a scheme of work as possible for such pupils, and how to avoid producing in them a feeling that they came back to school to take their place with boys who were junior to them when they left. Obviously, some form of individual work was necessary; it was clear, too, that a utilisation of the interests of the boys would assist in the solution of the problem. It was these and other considerations that led the then Headmaster, Mr. A. Greenough (now Deputy Education Officer for the Borough of Chesterfield), to devise a method whereby the boys in the top group had some choice in the subjects included on their individual time-tables and also whereby any boy returning to school after being in employment, could take up his study again at the point at which he laid it down.

This school was a well equipped and well staffed one, with a double-sized craft room (wood and metal), a science room, an art room, a gymnasium, and a hall, in addition to the usual classrooms. There were various forms of time-tables tried. The general time-table of the school was a seven day one, and so the time-table of this group, which came to be known as the "free group" was also a seven day one. Apart from some compulsory English and compulsory mathematics, there was for each period a choice open to the boys as to which activity they should be employed upon. The time-table which follows well indicates the range of choice. Following this are given three tables which give an analysis of the time-tables of five typical boys from the "A," "B," and "C" groups. The analyses given under the heading "First Time-Tables" were taken from the original time-tables selected by the boys. The "Second Time-Tables" are from those made after a short trial period after which each boy could revise his own time-table in the light of his experience of the way in which it worked.

This is not the place in which to attempt to describe the whole of the experiment and its results. It spread downwards—it was found possible to use it effectively in the 13-14 group. It aroused interest amongst the parents in their boy's studies. It avoided that rigid division of the school into forms, which is so often detrimental to the development of any real communal life. The group dissolved and reformed again, and again the individual members of it came together when a common interest demanded it.

A FREE GROUP TIME-TABLE

	Morning				Afternoon		
Period	1	2	3	4	5	6	7
Day 1	Music E. 1	Maths. E. 1	Geog. E. 1	Hyg. E. 1	P.T. Art Sci.	Geog. Art Sci.	Geog. Art Sci.
Day 2	Craft Geog.	Craft Geog.	Craft Geog.	Craft Music	E. 3 Art Dra.	Maths. Art Dra.	Maths. Art P.T. (Outdoor)
Day 3	E. 1 Sci. Bkg.	P.T. Sci. Bkg.	E. 3 Sci. Geog.	E. 3 Sci. Geog.	Art Sci. E. 1	Art Sci. E. 2	Art P.S. E. 2

A FREE GROUP TIME-TABLE—*continued.*

Day 4	E. 1 P.S. Bkg.	E. 1 Hist. Bkg.	Games E. 2	 E. 2	Music Art Sci.	P.T. Art Sci.	Maths. Art Sci.
Day 5	Art Sci. Bkg.	Art Sci. Hist.	Art Sci. Hist.	Art Sci. Music	Art Dra. Bkg.	Art Dra. Bkg.	Art Choral Sci.
Day 6	Dra. Craft	P.T. Craft	P.S. Craft Music	E. 1 Craft	Bkg. Craft ← Machine	E. 2 Craft Drawing	Music Craft →
Day 7	← Games Craft	→ Craft	Hyg. Craft Maths.	Hyg. Craft Maths.	P.S. Art Craft	Maths. Art Craft	Maths. Art Craft

1. Each boy must take at least one of the double E. 1 (written English) periods and at least three of the Mathematics periods in his " week."

2. The periods bracketed are to be regarded as continuous activities which cannot be divided.

FREE GROUP TIME-TABLE

Individual Time-Tables

(*a*) " A " Type Boys

Subject	First Time-Tables L	M	N	O	P	Second Time-Tables L	M	N	O	P
Craft	36	36	14	0	28	36	36	20	0	20
Art	28	0	10	12	10	20	0	10	16	14
Science	8	18	4	0	20	16	18	8	0	24
Games	0	4	4	8	4	0	4	4	8	4
Physical Training	4	6	8	10	4	4	6	4	10	4
*English 1	12	6	16	10	4	12	6	12	8	6
English 2	4	0	8	0	4	0	0	8	0	4
English 3	0	6	2	0	2	4	6	0	0	2
History	0	0	0	4	2	0	0	0	4	2
Geography	0	2	10	12	0	0	2	10	10	0
*Mathematics	6	6	6	8	6	6	6	6	8	6
Music	0	4	8	6	2	0	4	8	6	2
Dramatics	0	4	8	10	0	0	0	8	10	0
Bookkeeping	0	4	0	8	0	0	8	0	8	0
†Machine Drawing	0	0	0	0	6	0	0	0	0	6
Private Study	0	0	0	4	2	0	0	0	4	0
Hygiene	0	2	0	6	4	0	2	0	6	4

N.B.—Time-tables are shown again exclusive of Scripture.

* 2 periods English 1, 3 periods Mathematics compulsory for each boy.

† Machine Drawing can be taken in Art periods.

The letters L-P represent individual boys.

FREE GROUP TIME-TABLE

INDIVIDUAL TIME-TABLES. (*b*) " B " Type Boys

Subject	First Time-Tables					Second Time-Tables				
	Q	R	S	T	U	Q	R	S	T	U
Craft	36	0	30	26	36	28	0	36	20	36
Art	6	6	16	6	22	14	0	6	16	24
Science	12	20	18	20	0	10	24	26	8	0
Games	4	8	4	4	4	8	8	4	4	4
Physical Training	6	10	2	8	6	6	10	2	6	6
*English 1	10	10	4	8	6	10	12	4	12	6
English 2	0	4	0	2	0	0	2	0	6	0
English 3	2	0	2	0	0	2	0	0	4	0
History	0	0	2	0	0	0	0	2	0	0
Geography	10	0	2	4	10	10	4	0	4	10
*Mathematics	6	6	6	6	6	6	6	6	6	6
Music	2	6	2	4	6	2	6	6	4	4
Dramatics	0	10	8	8	0	0	8	4	4	0
Bookkeeping	0	8	0	0	0	0	8	0	0	0
†Machine Drawing	0	6	0	0	0	0	6	0	0	0
Private Study	2	2	2	2	0	2	2	2	4	0
Hygiene	2	2	0	0	2	0	2	0	0	2

N.B.—Time-tables are shown again exclusive of Scripture.
* 2 periods English 1, 3 periods Mathematics compulsory for each boy.
† Machine Drawing can be taken in Art periods.
The letters Q-U represent individual boys.

FREE GROUP TIME-TABLE

INDIVIDUAL TIME-TABLES. (*c*) " C " Type Boys

Subject	First Time-Tables					Second Time-Tables				
	V	W	X	Y	Z	V	W	X	Y	Z
Craft	36	36	14	36	36	36	36	14	28	36
Art	32	4	12	4	18	36	8	14	0	18
Science	8	20	18	20	8	8	16	8	20	8
Games	4	4	4	4	4	4	4	8	4	4
Physical Training	0	4	8	4	4	0	4	10	6	4
*English 1	4	4	8	4	4	6	4	10	6	4
English 2	4	0	2	2	0	0	0	4	4	0
English 3	0	2	0	2	2	0	2	0	2	2
History	0	0	2	2	0	0	0	2	2	0
Geography	0	6	4	2	6	6	6	8	8	6
*Mathematics	6	6	6	6	6	2	6	6	6	6
Music	0	4	4	6	4	0	4	6	4	4
Dramatics	0	0	4	2	0	0	0	2	0	0
Bookkeeping	0	4	6	0	4	0	4	6	0	4
†Machine Drawing	0	0	0	0	0	0	0	0	0	0
Private Study	4	2	4	4	0	0	2	0	4	0
Hygiene	0	2	2	0	2	0	2	0	4	2

N.B.—Time-tables are shown again exclusive of Scripture.
* 2 periods English 1, 3 periods Mathematics compulsory for each boy.
† Machine Drawing can be taken in Art periods.
The letters V-Z represent individual boys.

In the Appendix to this chapter there are a number of time-tables which are in actual use in various types of schools. These are reproduced in order to indicate to the student the various methods which can be used in arranging the work of the school to meet different circumstances. Some are based on a five-day scholastic week, some on a six-day week, and some on a seven-day one. Where necessary, notes are attached. All indicate that increasing fluidity which is characteristic of the modern school. It is perhaps worthy of special mention that on the time-table for the Special School for Physically Defective children "Adventuring" appears on the time-table as a "subject," and has been approved by the Board of Education. The time-tables given are as follows:—

A. *Infants' School* with Nursery Class attached.

B. *Junior Boys' School.*
D1—Time-table.
D2—Analysis.

C. *Junior Girls' School.*
E—General time-table.

D. *Modern Senior School (Mixed).*
F—General time-table.

E. *Modern Senior Girls' School.*
G1—Time-table.
G2—Notes and analysis.

F. *Modern Senior Boys' School.*
H1—Time-table.
H2—Summary.

G. *Special School.—Deaf Children.*
L1—General time-table.
L2—Detailed time-table.

H. *Special School for Physically Defective Children.*
M1—Time-table.
M2—Notes on time-table.

TIME TABLES

A—INFANTS' SCHOOL WITH NURSERY CLASS

Class 1.—Two groups of the same age work this time-table with a re-arrangement of activity lessons.

	8.55-9.30	9.30-9.45	9.45-10	10-10.30		10.45-11.10	11.10-11.35	11.35-12		1.30-2	2-2.30		2.45-3.10	3.10-3.30
M	Assembly, Registration and Religious Instruction	Mental Number	Physical Training		Recreation and lunch 10.30-10.40	Reading	Oral Eng., Word games, etc.	Written English	Registration 1.25-1.30	Optional	Percussion Band	Recreation 2.30-2.40	Knitting	Oral Eng. News time Picture talks
Tu		9.30-9.50 Physical Training & Games (Hall)	9.50-10.30 Mental & Written number			Reading	Poetry and Plays (Hall)	Written English		Knitting	Reading		Handwork	
W		9.30-9.45 Oral English including Speech Training and Word Games	9.40-10 Physical Training	10-10.30 Number		Reading	Nature chat in grounds when possible	Written English		Games (Hall)	Story		Brush Work	Singing (Class-room)
Th		Mental Number				Reading	Story	Written English		Written English	Games 1.55-2.10; 2.10-2.30 Poetry & Plays		Handwork	
F						Reading	Written English	Drawing			Singing Room 1		Story	Supplementary Readers

Number of Minutes spent on each Subject.—Assembly, Registration and Religious Instruction, 200; Number, 205; Oral English, Speech Training, etc., 60; Physical Training, 110; Reading, 175; Written English, 175; Poetry and Plays, 45; Handwork, 195; Story, 70; Music, 110; Nature, 25; Optional, 30; Recreation, 150; *Total* 1,550.

A—INFANTS' SCHOOL WITH NURSERY CLASS—*continued.*

Class 2.

	8.55-9.30	9.30-9.45	9.45-10	10-10.10	10.10-10.30		10.45-11.5	11.5-11.30	11.30-11.55			1.30-1.50	1.50-2.10	2.10-2.30		2.45-3.10	3.10-3.25	
M	Assembly, Registration and Religious Instruction	Daily Weather and Calendar Chat	Number games	Physical Training	Number	Lunch and Recreation 10.30-11.40	Nature chat (in grounds)		Reading	Dressing and Dismissal 11.55-12	Registration 1.25-1.30	Story and Expression Work		Games	Recreation 2.30-2.40	Percussion Band		Dressing and Dismissal 3.25-3.30
Tu			9.45-10.10 Number		Physical Training & Games (Hall)		10.45-11.10 Singing Room 1	11.10-11.30	Reading			Brush Work	Occupations	Poetry and Plays		Handwork		
W			9.45-10 Number Games	Physical Training	Number		10.45-11.5 Blackboard Reading	11.5-11.30	Reading			Handwork		Poetry and Plays (Hall)		Story	Singing Room 1	
Th							Singing Classroom	Writing	Reading			Drawing and Design		Games and Guessing games (if wet)		Poetry and Plays	Story	
F							Blackboard Reading		Reading			Games (Hall)		Optional		Picture Books	Cleanliness Chat. Polishing	

Number of Minutes spent on each Subject.—Assembly, Registration and Religious Instruction, 200; Number, 165; Conversation and Cleanliness Chat, 135; Reading, 165; Writing, 120; Physical Training, 100; Music (including games), 140; Story, 80; Handwork, 160; Poetry and Plays, 65; Optional, 20; Recreation, 150; Dressing and Dismissal, 50; *Total* 1,500.

A—INFANTS' SCHOOL WITH NURSERY CLASS—*continued.*

Class 3.

	8.50-9.30	9.30-9.40	9.40-9.50	9.50-10.10	10.10-10.20	10.20-10.30		10.45-11.5	1.5-11.25	11.25-11.35	11.35-11.55			1.30-1.50	1.50-2.10	2.10-2.30		2.45-3.10	3 10-3.25	
M	Assembly, Registration and Religious Instruction	Habit Training	Daily Weather and Calendar Chat	Group Reading	Physical Training	Number Games	Lunch and Recreation 10.30-10.40	Black-Board Reading	Number	Singing Games	Writing Occupations	Dressing and Dismissal 11.55-12	Registration 1.25-1.30	Drawing	Poetry and Plays	Singing games	Recreation 2.30-2.45	Story	Conversation News-time	Dressing and Dismissal 3.25-3.30
Tu					Number Games			10.45-11.10 Physical Training & Games (Hall)	11.10-11.25 Number					Percussion Band		Occupations		Singing	Story	
W					Physical Training			10.45-11.5 Nature Chat in grounds when possible	11·5-11.25 Number					Handwork		Story		Games Hall		
Th								Optional						Percussion Band		Poetry and Plays		Varied Occupations		
F								Black-board Reading						Story Dramatised Games	Picture Books	Poetry and Plays		Hand Work	Cleanliness Chat. Polishing	

Number of Minutes spent on each Subject.—Assembly, Registration and Religious Instruction, 200; Habit Training, Cleanliness Talk, 65; Conversation, 105; Reading, 140; Physical Training, 65; Number, 155; Poetry and Plays, 60; Optional, 20; Music (including games), 215; Handwork, 145; Story, 80; Writing, 100; Dressing and Dismissal, 50; Recreation, 150; *Total* 1,500.

NURSERY CLASS PROGRAMME

8.50. *Arrival and Greeting of Children.*—Talks with parents.

9-9.15. *Arranging Room.*—Flowers, watering plants, care of pets.

9.15-9.30. *Hymns and Prayers.*—Talks of anything of interest to the children.

9.30-10.15. *Free Play.*—In open if possible. Large toys, jungle gym, swing, chute, "running about" toys, sandpit.

10.15-10.30. *Washing.*—Hands and faces, hair combed in preparation for lunch.

10.30-10.50. *Lunch.*—Preparing tables. Grace, lunch. Clearing tables, washing up, etc. Teeth brushed.

10.50-11.30. *Constructive Play.*—Occupations at tables and on floor.

11.30-11.55. *Group Work.*—Generally entire group for music, activity play or games.

11.55-12. *Preparing for Home.*—Talks to parents.

1.20. *Arrival and Greeting of Children.*

1.30-2.45. *Sleep.*—In open if possible.

2.45-3.25. *Free Play.*—In open if fine. Fiction play including dolls' houses, toy shops, etc. Speech training (nursery rhymes, etc.).

3.25-3.30. *Preparing for Home.*

B—JUNIOR BOYS' SCHOOL

Day	Class	Assembly, Registration and Religious Instruction. 9.0-9.30		9.40	10.25	Break. 10.45-11.0	11.20	11.35	Dinner Hour. 12.0-1.30	1.40	2.15	Break. 2.45-3.0	3.0	3.30
M	4a			Arithmetic	10.15 English. Exs.		Eng. (Oral)	11.30 History			2.15 Art 2.45		Literature	3.30 Games 4.0
	4b		W	Arithmetic	Poetry		P.T.	English		History	Activity		Crafts	
	3a			Arithmetic	English (Exs.)		Eng. (Exs.)	P.T.		S | Reading	History		Art	
	2a		W	Arithmetic	P.T.		Eng. (Exs.)	Music		S | Drama	History		Activity	
	R		W	Arithmetic	Eng. (Exs.)		Eng. (Wr.)	S | Reading		Drama	Activity		Music	Literature
	1a		W	Arithmetic	P.T.		Eng. (Oral)	S | Reading		Geography	Activity		Nature Study	Literature
	1b			Arithmetic | S	Speech		Reading	P.T.		W | Eng. (Exs.)	Geography		Activities	
Tu	4a		W	Arithmetic	P.T.		English Composition			S | Drama	Geography		Music	Activity
	4b		W	Arithmetic	Eng. (Exs).		Drama	P.T.		Art			Geography	Literature
	3a		W	Arithmetic	Poetry		English Composition			Crafts			Music	Games
	2a			Arithmetic	Eng. (Writing)		P.T.	S | Reading		Nature Study	Activity		Poetry	Literature
	R		W	Arithmetic	P.T.		English	S | Reading		Geography	Activity		Activity	Poetry
	1a			Arithmetic	English (Oral)		P.T. | S	Reading		W | Speech	Music		Art	
	1b			Arithmetic | S	Speech		Reading	S | P.T.		Art and Craft	Music		Drama	Literature

(W = word work. S = speech training)

B—JUNIOR BOYS' SCHOOL—*continued.*

Day	Class	9.0–9.30	9.40	10.25	10.45–11.0	11.20	11.35	12.0–1.30	1.40		2.45–3.0	3.0	
W	4*a*	Assembly, Registration and Religious Instruction.	W Arithmetic 10.15	Eng. (Lit.)	Break.	English	11.30 P.T.	Dinner Hour.	Art Crafts.	2.15 Gardening 2.45	Break.	Nature Study	3.30 Reading 4.0
	4*b*		W Arithmetic	English		P.T.	English		S | Reading	History		Activity	Music
	3*a*		W Arithmetic	P.T.		English	Reading		S | Drama	Geography		Art	
	2*a*		W Arithmetic	Eng. (Pr.)		English Composition			S | History	History		Music	Games
	R		W Arithmetic	P.T.		English	S | Reading		Activity	Nature Study		Music	Eng. (Oral)
	1*a*		W Arithmetic	Eng. (Wr.)		Eng. (Wr.)	S | Reading		Activity			Music	Games
	1*b*		Arithmetic | S	Speech		S | Reading	P.T.		W| Art			Music	Literature
T	4*a*		W Arithmetic	P.T.		S | Reading	History		Handwork,	including—		—Woodwork	
	4*b*		W Arithmetic	English		Drama	English		S | Reading	Geography		Activity	Games
	3*a*		W Arithmetic	Poetry		Geography	P.T.		S | Reading	Nature Study		History	Literature
	2*a*		W Arithmetic	English (Exs.)		P.T. | S	Reading		Reading	Geography		Activity	
	R		W Arithmetic	P.T.		Eng. (E) | S	Reading		Art			Poetry	Literature
	1*a*		Arithmetic	English (Oral)		P.T. | S	Reading		W| History	Activity		Activity	Literature
	1*b*		Arithmetic |S	Speech		Reading	S | P.T.		W| Eng. (Exs.)	History		Activities	

(W = word work. S = speech training)

	Std.	9.0–9.30		9.40 (10.15)	10.25	10.45–11.0	11.20	11.35 (11.30)	12.0–1.30	1.40	2.15–2.45	2.45–3.0	3.0	3.30–4.0
F	4*a*	Assembly, Registration and Religious Instruction. 9.0-9.30	W	Arithmetic	P.T.	Break. 10.45-11.0	Gen. Interest Geog.	Poetry	Dinner Hour. 12.0-1.30	S | Eng. Corr.	Geography	Break. 2.45-3.0	Music	Literature
	4*b*		W	Arithmetic	Poetry		P.T.	English		S | English	Nature Study		Community Singing	Literature
	3*a*		W	Arithmetic	English		Speech	P.T.		Crafts				Literature
	2*a*		W	Arithmetic	P.T.		Geography	Reading		Art			Poetry	Literature
	R			Arithmetic |	English		P.T. | S	Reading		History	Activity		Literature	Games
	1*a*		W	Arithmetic	P.T.		English	S | Reading		Drama	Activity		Activity	Literature
	1*b*			Arithmetic S |	Speech		Reading	Games		Number Games	Drama		Nature Study	Literature

SUMMARY

Std.	Religious Instruction mins.	Recreation mins.	Composition English Exs. mins.	Reading mins.	Speech and Poetry mins.	Language and Word Building mins.	Drama and Stories mins.	Geography (*a*) mins.	History (*b*) mins.	Nature Study (*c*) mins.	P.T. and Games mins.	Art mins.	Handwork including Woodwork Gardening (*d*) mins.	Activities (*a*), (*b*), (*c*), (*d*), (*e*) mins.	General Interest mins.	Music Choral mins.	Music Theory mins.	Arith. (*e*) mins.	Total mins.
4*a*	150	150	185	80	70	40	75	60	60	30	120	75	210	30	30	30	30	225	1650
4*b*	150	150	180	135	70	50	60	60	60	30	150	75	135	60	—	30	30	225	1650
3*a*	150	150	170	100	70	40	95	60	60	30	140	120	150	—	30	30	30	225	1650
2*a*	150	150	160	150	100	40	95	60	60	45	135	75	—	150	—	30	30	225	1650
R	150	150	195	135	85	40	135	45	45	30	115	75	—	165	—	30	30	225	1650
1*a*	150	150	110	165	90	50	135	30	30	30	120	60	—	225	—	30	30	225	1650
1*b*	150	150	70	170	150	30	150	30	30	30	130	65	—	210	—	30	30	225	1650

C—JUNIOR GIRLS' SCHOOL

	Class	Assembly. Personal Inspection. Registration. 8.55-9.5	Religious Instruction. 9.5-9.35	Morning 9.35–9.55	9.55–10.40	Recreation. 10.40-10.55	10.55–11.30	11.30–12.0	Assembly. Registration. 1.25–1.30	Afternoon 1.30–2.0	2.0–2.30	2.30–3.0	Recreation. 3.0-3.15	3.15–3.30	3.30–4.0
M	I			Phys. Exer.	Arithmetic		Reading	Composition		Needlework		Singing		Speech Wk.	Recitation
	II			Word Study	Arithmetic		Composition	Geography		Needlework		Singing		Story	Recitation
	III			Phys. Exer.	Arithmetic		Composition	Geography		Needlework		Recitation		Word Study	Reading
	IV			Word Study	Arithmetic		Geography	English		Needlework		P.T.		Literature & Reading	
	V			Singing	Arithmetic		English	History		Needlework		Literature		Recitation	Phys. Exer.
Tu	I			Singing	Arithmetic		Composition	History		Health	Observation	Phys. Exer.		Drawing	
	II			Singing	Arithmetic		Phys. 11-11.20	Composition		Health	History	Reading		Drawing	
	III			Word Work	Arithmetic		Composition	Reading		Handwork		Dictation		Games	Dram. Wk.
	IV			Singing	Arithmetic		Phys. Exer.	English		Handwork		Hy. & Nat.		History	Reading
	V			Phys. Exer.	Arithmetic		English	Geography		Handwork				Recitation & Reading	
W	I			Word Study	Arithmetic		Geography	English		Needlework		Phys. Exer.		Reading	Recitation
	II			Phys. Exer.	Arithmetic		Composition	Reading		Needlework		Reading		Word Study	Recitation
	III			Word Study	Arithmetic		English	History		Needlework		Singing		Phys. Exer.	Reading
	IV			Phys. Exer.	Arithmetic		Composition	Reading		Needlework		Recitation		Speech Wk.	Reading
	V			Singing	Arithmetic		Composition	Reading		Needlework		Singing		Poems	Phys. Exer.

C—JUNIOR GIRLS' SCHOOL—*continued.*

	Class	Morning							Afternoon						
				9.35–9.55	9.55–10.40		10.55–11.30	11.30–12.0		1.30–2.0	2.0–2.30	2.30–3.0		3.15–3.30	3.30–4.0
Th	I	Assembly. Personal Inspection. Registration. 8.55-9.5	Religious Instruction. 9.5-9.35	Singing	Arithmetic	Recreation. 10.40-10.55	English	History	Assembly. Registration. 1.25-1.30	Handwork		Gms or Dan.	Recreation. 3.0-3.15	Word Study	Reading
	II			Singing	Arithmetic		History	Composition		Handwork		Optional		Phys. Exer.	Reading
	III			Singing	Arithmetic		Composition	Geography		Drawing	Dancing	Observa.		Hl. & Hy.	Reading
	IV			Singing	Arithmetic		History	English		Drawing		English		Country-Dancing	
	V			Phys. Exer.	Arithmetic		English	History		Drawing & Design				Dramatic Work	
F	I			Phys. Exer.	Arithmetic		Geography	English		Needlework		Story		Optional	Recitation
	II			Word Study	Arithmetic		English	Geography		Needlework		Physical		Optional	Stories
	III			Op. Tests	Arithmetic		English	History		Needlework		Physical		Reading	Stories
	IV			Music	Arithmetic		Geography	Phys. Exer.		Needlework		Optional		Games	Dram. Wk.
	V			Phys. Exer.	Arithmetic		English	Geography		Needlework		Optional		Dancing	

C—JUNIOR GIRLS' SCHOOL—*continued.*

ANALYSIS

CLASS	Religious Instruction		Arithmetic		Reading		Composition		English		Literature		Word Study and Dictation		Speech Work	
	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.
I	2	30	3	45	1	20	1	15	1	35	–	–	–	35	–	15
II	2	30	3	45	2	0	2	10	–	35	–	–	–	55	–	–
III	2	30	3	45	2	15	1	45	1	10	–	–	1	25	–	–
IV	2	30	3	45	1	30	–	35	2	0	–	15	–	20	–	15
V	2	30	3	45	1	0	–	35	2	20	–	30	–	–	–	–

CLASS	Recitation		History		Geography		Music and Singing		Stories		Health and Observation		Physical Exercises		Games and Dancing	
	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.
I	1	30	1	0	1	10	1	10	–	30	1	0	1	40	–	30
II	1	0	1	5	1	0	1	10	–	45	–	30	1	40	–	–
III	–	30	1	0	1	0	1	10	–	30	–	45	1	40	–	15
IV	–	30	–	50	1	10	–	60	–	–	–	–	1	25	1	0
V	–	45	1	0	1	0	1	10	–	–	–	–	2	0	–	45

CLASS	Handwork		Needlework		Drawing		Hygiene		Optional		Registration and Pers. Inspec.		Recreation		Dramatic	
	H.	M.	H.	M.	H.	M.	H.	M.	H	M.	H.	M.	H.	M.	H.	M.
I	1	0	3	0	–	45	–	–	–	15	1	15	2	30	–	–
II	1	0	3	0	–	45	–	–	–	45	1	15	2	30	–	–
III	1	0	3	0	–	30	–	–	–	20	1	15	2	30	–	–
IV	1	0	3	0	1	0	–	30	–	30	1	15	2	30	–	30
V	1	30	3	0	1	30	–	–	–	30	1	15	2	30	–	45

D—MODERN (*Senior Mixed*) SCHOOL

3*A*.	Boys, Handicraft	Girls, Domestic Science		Day 1	Maths.	Music	Boys, P.T.
3.	History	Maths.	English		Girls, Science.	Boys, Mech. Drawing	Girls, Games
2*A*.	Geography	ART			Girls, P.T.	History	Maths.
2.	Maths.	Geography	History		Boys, Maths.	English	English
1*A*.	Maths.	History	Music		Maths.	English	Boys, Games
1.	History	English	Geography			ART	Girls, Music
3*A*.	History	ART		Day 2	English	Maths.	Boys, Games
3.	Boys, Handicraft	Girls, Domestic Science			Maths.	Music	Girls, Maths.
2*A*.	English	History	Music		Girls, Science.	Boys, Mech. Drawing	Boys, P.T.
2.	English	Maths.	Music		Music	English	Girls, Games
1*A*.	English	Geography	Maths.		Girls, P.T.	English	Maths.
1.	Maths.	English	History		Boys, Music	Geography	Maths.
3*A*.	English	Geography	History	Day 3	Girls, P.T.	Maths.	English
3.	Maths.	ART			Boys, Music	English	Maths.
2*A*.	Boys, Handicraft	Girls, Domestic Science			Geography	Music	Boys, Games
2.	Maths.	Optional	English		Girls, Science.	Boys, Mech. Drawing	Girls, Maths.
1*A*.	History	English	English		ART	CRAFT	Boys, P.T.
1.	English	Maths.	Optional		ART	CRAFT	Girls, Games

D—MODERN (*Senior Mixed*) SCHOOL—*continued*

3*A*.		English	Geography	Maths.		Boys, P.T.		Boys, Science
3.		Geography	English	History		Girls, Needlework		Girls, P.T.
2*A*.		Maths.	English	Optional	DAY 4	Geography	Maths.	English
2.		Boys, Handicraft	Girls, Domestic Science			ART		Geography
1*A*.		English	Maths.	Geography		Maths.	Girls, Science.	Boys, Mech. Draw.
1.		Maths.	English	English		Maths.	Geography	English
3*A*.		History	English	English		ART	CRAFT	Geography
3.		Maths.	Geography	Maths.		ART	CRAFT	History
2*A*.		English	Maths.	English	DAY 5	Boys, P.T.		Boys, Science
2.		Maths.	History	Geography		Girls, Needlework		Girls, P.T.
1*A*.		Boys, Handicraft	Girls, Domestic Science			History	Geography	Maths.
1.		History	Maths.	English		Music	Girls, Science.	Boys, Mech. Draw.
3*A*.		English	Maths.	Music		Maths.	Girls, Science.	Boys, Mech. Draw.
3.		English	English	Maths.		Music	English	Geography
2*A*.		Maths.	Maths.	History	DAY 6	ART	CRAFT	English
2.		Maths.	History	English		ART	CRAFT	Maths.
1*A*.		English	ART			Boys, P.T.		Boys, Science
1.		Boys, Handicraft	Girls, Domestic Science			Girls, Needlework		Girls, P.T.

D—MODERN (*Senior Mixed*) SCHOOL—*continued.*

SUMMARY

		English	History	Geography	Science	Mathematics	Music	Art	Art Craft	Woodwork and Mech. Drawing	Needlework	Domestic	P.T. and Games	Optional P.T.	Total
3*A*.	B	7	3	3	2	6	3	2	2	5	—	—	3	—	36
	G	7	3	3	2	7	2	2	2	—	2	3	3	—	36
3.	B	6	3	3	2	7	3	2	2	5	—	—	3	—	36
	G	6	3	3	2	8	2	2	2	—	2	3	3	—	36
2*A*.	B	6	3	3	2	7	2	2	2	5	—	—	3	1	36
	G	6	3	3	2	7	2	2	2	—	2	3	3	1	36
2.	B	6	3	3	2	7	2	2	2	5	—	—	3	1	36
	G	6	3	3	2	7	2	2	2	—	2	3	3	1	36
1*A*.	B	7	3	3	2	7	2	2	2	5	—	—	3	—	36
	G	7	3	3	2	7	2	2	2	—	2	3	3	—	36
1.	B	7	3	3	2	6	2	2	2	5	—	—	3	1	36
	G	7	3	3	2	6	2	2	2	—	2	3	3	1	36

E.—MODERN SENIOR GIRLS' SCHOOL.

D.		Form	9.30 — 10.50	11.0 — 11.30	Form	1.30 — 2.50	3.0 — 3.30 — 4.0	
I	Assembly and Religious Instruction 9.0 to 9.30	9	Handwork *All day* (½ class to Domestic Science)		9	Science	Gardening	I
		10/8	P.T. 30′ | Arith. 50′	English	10/8	Needlework	Optional	
		7	P.T. 30′ | Arith. 50′	English	7	Geog. and/or Gardening		
		6	Music 30′ | Geog. 50′	P.T. 30′ | History 30′	6	English		
		5	Science 30′ | History 50′	Geography	5	Dancing 40′ Music 40′		
		3	French 30′ | Music 50′	Arithmetic	3	History English		
		2	History 30′ | Music 50′	Arithmetic	2	Writing English		
		1	Geog. 30′ | Music 50′	Writing 30′ | P.T. 30′	1	English | History		
II		9	Geog. 40′ | Arith. 40′	French | P.T.	9	English	History	II
		10/8	Handwork *All day* (½ class to Domestic Science)		10/8	Science	Gardening	
		7	History	Arithmetic	7	Art and English		
		6	Science 30′ | Arith. 50′	English	6	Music 40′ | Games 40′	French	
		5	P.T. 30′ | Arith. 50′	English	5	Needlework		
		3	Needlework and Writing	P.T. | French	3	Geog. 40′ | English 70′	| Science 30′	
		2	Arith. 30′ | English 50′	Needlework	2	Games 40′ | Geog. 40′	Science 30′ | Music 30′	
		1	English 30′ | Arithmetic and Science		1	English 40′ | Needlework 70′	| Games 30′	

E.—MODERN SENIOR GIRLS' SCHOOL—*continued.*

Day		Form	9.30 – 10.50	11.0 – 11.30	Form	1.30 – 2.50	3.0 – 3.30 – 4.0	
III	ASSEMBLY AND RELIGIOUS INSTRUCTION 9.0 to 9.30.	9	Art and English		9	1st Aid and Games	English	III
		10/8	Arith. 40' / P.T. 40'	History	10/8	Music 40' / Needlework		
		7	English 40' / P.T. 40'	Geography	7	Arith. 40' / Music 40'	Science	
		6	Music 40' / Geog. 40'	P.T. 30' / Arithmetic	6	Art and English		
		5	Music 40' / History 40'	Science 30' / Eng-	5	lish 70' / Geog. 40'	Music 30' / Games 30'	
		3	Handwork *All day* (½ class to Domestic Science)		3	Science	Gardening	
		2	History 40' / Arith. 40'	English 30' / P.T. 30'	2	Geog. 40' / English 40'	Dancing 30° / Music 30'	
		1	Geog. 40' / English 40'	Music and Writing	1	History 40' / Handwork 70'	English 30'	
IV		9	English 40' / Arithmetic and French		9	Music 40' / History 40'	Optional	IV
		10/8	Art and English		10/8	Science 40' / Geog. 40'		
		7	Domestic Science		7	Handwork		
		6	French 30' / Arith. 50'	History	6	English 40' / Dancing 40'		
		5	P.T. 30' / Arith. 50'	English / Arith., Geog.	5	Needlework		
		3	English	P.T. 30' / Arith. 30'	3	History 40' / English 40'		
		2	Writing 40' / History 40'	Science 30' / P.T. 30'	2	Geog. 40' / English 40'		
		1	Science 40' / Music	Needlework	1	Domestic Science		

E.—MODERN SENIOR GIRLS' SCHOOL—*continued.*

Day	9.0 to 9.30	Form	9.30 – 10.50	11.0 – 11.30	Form	1.30 – 2.50	3.0 – 3.30 – 4.0	Day
V	Assembly and Religious Instruction	9	Geog. 50′ | Arith. 30′	French 30′ | P.T. 30′	9	Needlework		V
		10/8	History 50′ | Arith. 30′	Geog. 30′ | Music 30′	10/8	Dancing and 1st Aid	Dancing and 1st Aid | Science 30′	
		7	English 30′ | Arith. and/or Needlework	Arith. and/or Needlework | Geog. 30′	7	Dancing and 1st Aid	Dancing and 1st Aid | History 30′	
		6	Handwork *All day* (½ class to Domestic Science)	Handwork *All day* (½ class to Domestic Science)	6	Science	Gardening	
		5	Arith. 50′ | Geog. 30′	History	5	Art and English		
		3	Music and Needlework	Music and Needlework | Arith. 30′	3	History 40′ | English 40′	Science 30′ | Games 30′	
		2	Art and English	Art and English	2	Geog. 30′ | English 50′	Needlework	
		1	Arith 50′ | History 30′	P.T. 30′ | English 30′	1	Music 30′ | Garden. 50′	English	
VI		9	Arith. 30′ | English 50′	English	9	Geog. 40′ | Music 40′	1st Aid and Dancing	VI
		10/8	Arith. 30′ | P.T. 30′ | Eng. 20′	English	10/8	English and History		
		7	Arith. 30′ | P.T. 30′ | Eng. 20′	English	7	Handwork	Science	
		6	English 30′ | Geog. 50′	Arith. 30′ | P.T. 30′	6	Needlework		
		5	Handwork *All day* (½ class to Domestic Science)	Handwork *All day* (½ class to Domestic Science)	5	Science	Gardening	
		3	Music 30′ | Arith. 50′	Geography	3	French 40′ | Dancing 40	English	
		2	History 30′ | Arith. 50′	P.T. 30′ | Music 30′	2	Music 40′ | English	English	
		1	Geog. 30′ | Eng. 30′ | P.T. 20′	Arithmetic and Science	1	Art and English		

E.—MODERN SENIOR GIRLS' SCHOOL—*continued.*

Day		Form	9.30	10.50	11.0	11.30	Form	1.30	2.50	3.0	3.30	4.0	
VII	9.0 to 9.30. Assem. & R. Instruction	9	Arith. 30′	Music 50′	P.T. 30′	Music 30′	9	History 40′	Pr. std. 40′	Science 30′	English 30′		VII
		10/8	Arith. 30′	Music 50′	Geography		10/8	1st Aid and Games		English			
		7	Arith. 30′	Music 50′	Needlework		7	1st Aid and Games		English			
		6	English 30′	Arith. 50′	English		6	Music 40′	History 40′	Mus. (Th) 30′	Science 30′		
		5	English 30′	Arith. 50′	English		5	English 50′	Geog. 30′	P.T. 30′	Music 30′		
		3	Geog. 40′	Science 40′	Music 30′	P.T. 30′	3	Art and English					
		2	Handwork *All day* (½ class to Domestic Science)				2	Science		Gardening			
		1	English 40′	History 40′	Science		1	Geog. 50′	Handwork 60′		Dancing		

E.—MODERN SENIOR GIRLS' SCHOOL—*continued*

TIME-TABLE ANALYSIS

Classes are arranged:
- 1st year I, II, III.
- 2nd year V, VI.
- 3rd year VII, VIII, IX.
- Seniors working with Class VIII and privately.

Commercial class. Each Tuesday and Thursday, 1.30–4.0 p.m.

Domestic Science, Handwork, Science and Gardening groups are composed of ½-classes (except Class I and VII).

Swimming. 4 groups each Monday afternoon.

All classes alike:

Domestic Science	½-day in 7 school days
P.T., Games, Dancing	5 periods ,, ,,
Art	80 mins. ,, ,,
Gardening	1 hr. ,, ,,
Optional	2 hrs. ,, ,,

Class	9	8	7	6	5	3	2	1
Writing	—	—	—	—	—	30′	70′	60′
French	100′	—	—	90′	—	100′	—	—
1st Aid	70′	110′	110′	—	—	—	—	—
Handwork	2½ h.	2½ h.	2+80′	2½ h.	2½ h.	2½ h.	2½ h.	2+60′
Needlework	2½ h.	3 h.	3 h.	2½ h.	3h.	120′	140′	130′
Science, Pr.	80′	80′	2+60′	80′	80′	80′	80′	2+60′
Science, Th.	30′	30′	30′	30′	60′	60′	60′	60′
Music	160′	120′	120′	180′	140′	150′	180′	150′
Arithmetic	180′	200′	230′	210′	220′	170′	180′	180′
Geography	130′	130′	140′	140′	160′	140′	150′	150′
History	140′	170′	170′	130′	150′	120′	140′	150′
English	310′+ 40′ P.S.	320′	330′	360′	360′	390′	410′	400′

These times may be slightly varied where one teacher takes a class for more than one subject.

F—MODERN SENIOR BOYS' SCHOOL

D.	1		2		3		6		7		8		10	
	1c	Maths.	2b	Eng.					**	Eng.	1b	Geog.	1a	Art
	3a	Eng.	**	Maths.	½2a	W. Dw.	1c	Eng.	3c	Hist.			1a	,,
			3b	,,	½2a	,, ,,	3c	,,	1c	,,	2b	,,	½2a	,,
	1a	,,			½2a	,, ,,	1b	Maths.	††	,,	3b	,,	½2a	,,
1	1a	,,	2b	Eng.	½1b	,, ,,	2a	Eng.					½1b	,,
	2a	,,	3b	,,	½1b	,, ,,	2c	,,	††	W. Dw.			½1b	,,
	2c	Maths.	3b	,,			3c	,,	††	,, ,,	2a	,,		
	2c	,,	3b	Maths.			1b	Maths.			1c	,,	††	,,
	1c	,,	3b	Eng.			2c	Eng.	2a	Hist.			††	,,
	1a	Eng.	**	Maths.	½1a	,, ,,			3a	,,	3c	,,	½1a	,,
2	2a	,,			½1a	,, ,,	3a	,,	**	Eng.	1a	,,	½1c	,,
	3a	,,	2b	Eng.	3c	,, ,,	1b	Maths.	3b	Hist.	††	,,	½2c	,,
	2a	,,	2b	,,	3c	,, ,,	1c	Eng.	††	W. Dw.	3a	,,	½2c	,,
	3a	,,			3c	,, ,,			††	,, ,,				
	1c	Maths.	**	Maths.	½2a	,, ,,			1a	Hist. ..	2a	,,	2c ½	,,
	1a	Eng.			½2c	,, ,,	1c	,,	2b	,,	††	,,	½2c	,,
	2a	,,			½1a	,, ,,	††	Hyg.	2c	,,	1b	,,	½1a	,,
3	2a	,,	2b	Eng.	½1a	,, ,,	††	,,			2c	,,	½1a	,,
	3a	,,	3b	,,	½2b	,, ,,	3c	Eng.					1c	,,
	1a	,,	3b	,,	½2b	,, ,,	2c	,,					1c	,,
	2c	Maths.			½2b	,, ,,	3c	,,			2a	Sci.		

Notes:—** Compulsory subjects. †† Optional subjects.

F—MODERN SENIOR BOYS' SCHOOL—*continued.*

D.	11	14	15	CRAFT	SCIENCE	ART	FIELD	GYM.
	3*c* Maths.		3*a* Maths.	2*c*	½3*b*	½3*b*		2*a*
		½2*a* Pr. Std.	1*b* Eng.	2*c*	½3*b*	½3*b*		2*b*
	†† Music	1*a* ,, ,,		2*c*	½3*a* + ††	½3*a* + ††		1*b*
	3*c* ,,		2*b* Maths.	2*c*	½3*a* + ††	½3*a* + ††		1*c*
1	3*b* ,,	½3*c* ,, ,,	2*a* ,,	†† ††Sc	1*c*	½3*a*		3*a*
	3*a* ,,	½3*c* ,, ,,	1*a* ,,	††	1*c*	½3*a*	2*b*	
		3*a* Sci.		††			2*b*	1*abc* Music
		1*a* Pr. Std.	2*a* ,,	2*b*	½3*a* + ††	½3*a* ††		3*c*
	3*c* Maths.	1*b* ,, ,,	1*a* ,,	2*b*	½3*a* + ††	½3*a* ††		
		2*a* ,, ,,	1*b* Eng.	2*b*	½3*b*	½3*b*		2*c*
2		2*c* ,, ,,	3*a* Maths.	2*b*	½3*b*	½3*b*		1*b*
	1*a* Music			1*a*	½2*c*	††		2*a*
			1*b* Eng.	1*a*	½2*c*	††	3*b*	
			1*b* ,,	1*a*	1*c*	††	3*b*	2*abc* Music
	3*a* Maths.	½3*a* ,, ,,	1*b* ,,	3*b*		½3*a*		2*b*
	2*a* Music	½3*a* ,, ,,	1*b* ,,	3*b*	††	½3*a*		3*c*
	3*a* ,,	½3*c* ,, ,,	2*b* Maths.	3*b*	††	½3*c*	1*c*	
3	1*b* ,,	½3*c* ,, ,,	3*a* ,,	3*b*	††	½3*c*	1*c*	
	†† ,,	2*c* Sci.	2*a* ,,	††	1*b*	½2*b*		1*a*
		3*c* ,,		††	1*b*	½2*b*	3*a* ††	2*a*
	1*c* ,,	½2*b* Pr. Std.	1*a* ,,	††	1*b*		3*a* ††	3*b*

Notes :—** Compulsory subjects. †† Optional subjects.

F—MODERN SENIOR BOYS' SCHOOL—*continued.*

D.	1		2		3		6		7		8		10	
	2c	Maths.	**	Maths.			1c	Eng.	1b	Hist.	3b	Geog.	½2a	Art
	3a	Eng.	3b	Eng.	½2b	W. Dw.	1b	Maths.	**	Eng.	1c	,,	⅓2a	,,
	2a	,,	3b	Maths.	½2b	,, ,,	1a	Eng.	3a	Hist.	††	,,	1b	,,
4	3a	,,	3b	,,	½2b	,, ,,	2c	,,	2a	,,	††	,,	1b	,,
	1a	,,	2b	Eng.	3a	,, ,,	1a	,,					½2c	,,
					3a	,, ,,	1c	,,			††	,,	½2c	,,
	1a	,,			3a	,, ,,	3c	,,	1c	,,	††	,,	††	,,
	3a	,,	3b	Maths.	½1b	,, ,,	2c	,,	††	,,	††	,,	½1b	,,
	3a	,,	††	Drama	½1b	,, ,,	1c	,,	2c	,,	3a	,,	½1b	,,
	2c	Maths.	3b	Eng.	½1a	,, ,,			**	Eng.	3a	,,	½1c	,,
5	1a	Eng.	3b	,,	½1c	,, ,,	2c	,,	**	,,	2b	,,	½1c	,,
					½2a	,, ,,	1b	Maths.	3c	Hist.	2b	Sci.	½2a	,,
	1c	Maths.			½2a	,, ,,	3c	Eng.	1b	,,			½2a	,,
	1c	,,			½2a	,, ,,			2b	,,				
	1c	,,	2b	,,	½1a	,, ,,	2c	,,	††	,,	††	Geog.	½1a	,,
	1c	,,	3b	Maths.	½1a	,, ,,	1b	Maths.	††	,,	††	,,	½1a	,,
	2a	Eng.	**	,,	½2c	,, ,,	1c	Eng.	3b	,,			½2c	,,
6	1a	,,	**	,,	½2c	,, ,,	3c	,,					½2c	,,
	2c	Maths.			3b	,, ,,	1b	Maths.			1a	,,	½2a	,,
			2b	Eng.	3b	,, ,,			**	Eng.	2c	,,	½2a	,,
	2a	Eng.			3b	,, ,,	2c	Eng.	1a	Hist.			††	,,

Notes:—** Compulsory subjects. †† Optional subjects.

F—MODERN SENIOR BOYS' SCHOOL—*continued.*

D.	11		14		15		Craft	Science	Art	Field	Gym.
	1*a*	Music			3*a*	Maths.	3*c*	½2*a*			2*b*
	2*c*	,,	½2*b*	Pr. Std.	1*a*	,,	3*a*	½2*a*			
							3*c*	††	½2*b*	1*a*	2*c*
							3*c*	††	½2*b*	1*a*	1*c*
	3*c*	Maths.	½3*b*	,, ,,	2*a*	,,	1*b*	½2*c*	½3*b*		**
4	3*c*	Music	½3*b*+††	,, ,,	2*b*	,,	1*b*	½2*c*	½3*b*	2*a*	1*a*
	2*b*	,,	2*a*	,, ,,	3*b*	Sci.	1*b*		††	2*a*	
	3*a*	Maths.	1*a*	,, ,,	1*a*	Maths.	2*a*	½2*b*	½2*b*		
	††	Music			1*a*	,,	2*a*	½2*b*	½2*b*		3*b*
	1*a*	,,			2*b*	,,	2*a*	½3*c*	½3*c*	1*b*	
5					3*a*	,,	2*a*	½3*c*	½3*c*	1*b*	
	2*c*	,,	½3*b*	,, ,,	3*a*	,,	**	1*a*	½3*b*		1*c*
	2*b*	,,	½3*b*	,, ,,			**	1*a*	½3*b*	2*c*	3*a*
			½2*a*	,, ,,	1*b*	Eng.	**	1*a*		2*c*	3*abc*
			1*b*	,, ,,	2*a*	Maths.	3*a*	½3*c*	½3*c*		3*b*
	2*a*	,,			2*b*	,,	3*a*	½3*c*	½3*c*		2*c*
	1*b*	,,			1*a*	,,	3*a*	½2*b*	½2*b*		3*c*
6	3*b*	,,	1*c*	,, ,,	2*a*	,,	3*a*	½2*b*	½2*b*		1*b*
	3*c*	,,	½3*a*	,, ,,	2*b*	,,	1*c*	½2*a*	½3*a*		**
			½3*a*	,, ,,	1*b*	Eng.	1*c*	½2*a*	½3*a*	3*c*	1*a*
			2*b*	,, ,,	1*b*	,,	1*c*	††	††	3*c*	3*a*

Notes:—** Compulsory subjects. †† Optional subjects.

F—MODERN SENIOR BOYS' SCHOOL—*continued.*

SUMMARY

	1*a*	1*b*	1*c*	2*a*	2*b*	2*c*	3*a*	3*b*	3*c*	4
English ..	9	9	9	8	8	9	8	8	8	
Maths. ..	7	7	7	6	6	6	6	6	6	
Geography	2	2	2	2	2	2	2	2	2	
History ..	2	2	2	2	2	2	2	2	2	
Workshop Drawing	2/2	2/2	2/2	3/3	3/3	2/2	3	3	3	
Workshop Practice	3	3	3	4	4	4	4	4	4	
Art	2/2 + 2	2/2 + 2	2/2 + 2	4/4	4/4	4/4	4/4	4/4	4/4	
Science ..	3	3	3	2/2 + 1	2/2 + 1	2/2 + 1	2/2 + 1	2/2 + 1	2/2 + 1	
Music	2 + 1	2 + 1	2 + 1	2 + 1	2 + 1	2 + 1	2 + 1	2 + 1	2 + 1	
Physical Training	3	3	3	3	3	3	3	3	3	
Games ..	2	2	2	2	2	2	2	2	2	
Private Study	2	2	2	1/1 + 1	1/1 + 1	2	2/2	2/2	2/2	
	42 Periods of 40 Minutes Each									

Religious Instruction 9 a.m.–9.30 a.m. Daily.

G.—SPECIAL SCHOOL—DEAF CHILDREN.

General Time Table.

Sunday		*Weekdays*	
7.0	Seniors rise.	6.30	Seniors rise.
7.30	Juniors rise	7.0	Juniors rise.
8.0	Breakfast.	7.30	Breakfast.
8.30	Nurse's Inspection.	8.0	Nurse's Inspection.
9.10	Assem. and Prayers.	8.50	Assem. and Prayers
9.10 to 10	Sunday School.	9 to 12.0	School.
10 to 12.30	Church, Country walk or Suitable occupation.	12.30	Dinner.
		1 to 1.50	Recreation.
		1.50 to 4.40	School.
12.30	Dinner.	5.0	Tea.
1 to 4.30	Quiet Recreation, Visit to Rec. Field, Country walk or Suitable occupation.	5.30 to 6.15	Recreation.
		6.15 to 7	Preparation. Reading. Hobbies.
4.30	Tea.	*6.30	Juniors retire.
5 to 6	Quiet Recreation.	7.30	Supper.
6 to 7	Prep. or Reading.	*8.0	Seniors retire.
*6.30	Juniors retire.		
7.30	Supper.		
*8.0	Seniors retire.		

Wednesdays and Saturdays

(No school in the afternoons)

1 to 4.45	Recreation Field for Matches and play. Country walk or suitable occupation.
5.0	Tea.
From 5.0	onwards.—The usual evening Table Time.

* The Evening times are 30 mins. later during the Summer Time Period

G—SPECIAL SCHOOL—DEAF CHILDREN—*continued.*

DETAILED TIME-TABLE.

JUNIOR CLASS (B OF E CLASSIFICATION GRADE III. PUPILS)

	9 to 10.30		to 11.10	to 11.35	to 12	1.50 to 2.30	to 3		to 4
M	Daily:— Voice & breathing exercises. Individ. Speech Work Individ. Occupations.	Recess	Speech Read.	Lang. Forms	P.T.	Reading	Writing	Recess	Paper Cutting Wool & Rafia Work
Tu			Reading	Number		Writing	Speech Read.		
W			Writing	Number					
Th			Reading	Number	P.T.	Writing	Speech Read.	Recess	Toy-making Modelling Paint. Draw.
F			Speech Read.	Lang. Forms		Number	Writing		
S			Writing	Language Forms					

INTERMEDIATE CLASS (B OF E CLASSIFICATION GRADE III. PUPILS).

	9 to 9.45	to 10.30		to 11.35	to 12	1.50 to 3		to 4.40
M	Daily:— Voice & breathing exercises. Individ. Speech Work. Rhymes. Conversation. Question Forms.	Bible Stories	Recess.	News or Story	P.T.	Lang. Forms	Recess	Manual Subjects
Tu		Arithmetic		Vocabulary		Speech Read.		
W		Arithmetic		Geography				
Th		Bible Stories		Diary or Story	P.T. or Swm.	Speech Read.	Recess	Manual Subjects
F		Arithmetic		Reading		Drawing		
S		Arithmetic		Nature Study				

Manual Subjects:—Boys: Woodwork, Metal Work. Girls: Needlework.

G—SPECIAL SCHOOL—DEAF CHILDREN—*continued.*

DETAILED TIME-TABLE.—*continued.*

Intermediate Class (B of E Classification Grade IIb Pupils).

	9 to 9.45	to 10.30		to 11.35		to 12	1.50 to 3		to 4.40
M	Bible Stories	Arithmetic	Recess	Speech Work in the Amplifier Classrm.	Dictation	P.T.	Elem. Science	Recess	Manual Subjects
Tu	History	Arithmetic			Geography		Language		
W	Bible Stories	Arithmetic			Elementary Science				
Th	Speech	Arithmetic			History	P.T. or Swm.	Health Knowl.	Recess	Manual Subjects
F	Geography	Arithmetic			Health Knowl.		Drawing		
S	Percussion Band			Language					

Manual Subjects:—Boys: Woodwork, Metal Work. Girls: Needlework.

Senior Class (B of E Classification Grade III. Pupils).

	9 to 9.45	to 10.30		to 11.35	to 12	1.50 to 3		to 4.40
M	News	Arithmetic	Recess	Reading	P.T.	Elem. Science	Recess	Manual Subjects
Tu	Bible Stories	Arithmetic		Speech & Speech Read.		Geography		
W	News	Civics		Vocabulary				
Th	Bible Stories	Arithmetic		Language Forms	P.T. or Swm.	History	Recess	Manual Subjects
F	News	Arithmetic		Composition		Drawing		
S	Diary or Story	Health Knowl.		Speech & Speech Reading				

Manual Subjects:—Boys: Woodwork, Boot Repairing, Gardening. Girls: Dressmaking, Cooking and Laundry.

H.—SPECIAL SCHOOL—PHYSICALLY DEFECTIVE CHILDREN.

	Class 1					Class 2				
	Mon.	Tues.	Wed.	Thur.	Fri.	Mon.	Tues.	Wed.	Thurs.	Fri.
9.10	Assembly of children and Religious Instruction									
9.30	Dan. and Euryth.	Physical Exercises	Dan. and Euryth.	Physical Exercises	Dan. and Euryth.	Number Activities and Remedial Work				
9.50–10.10	Number Activities, Practice and Remedial Work					Physical Exer., Remedial Exer., Music & Movement				
10.30	Milk Break									
10.45	Reading, some Remedial work, Use of Library, Critical Reading					Reading. Group and Individual Work				
11.15	English	English	Music	English	Mime. Verse Speaking	English, Drama, Verse, Remedial and Creative Work				
11.45	Verse Speaking		Literature	Literature	Music (Singing)	Music	Literature	Music	Literature	Literature
12.0	Toilet									
12.5	Dinner and play									
12.45	Rest									
1.55	Remedial Exercises and Organised Games									
2.15–3.55	Geog. Activities / Art and Craft	Drama / Gardening and Nature Study	Art and Craft / Games	Project	History Activity / Literature	Gardening and Nature Study / Adventur.	Art and Craft / History Activities	Speech training Drama / Geog. Activities	Project Work / Games	Art and Craft / Literature

Times printed in the margin: 9.10, 9.30, 9.50, 10.10, 10.30, 10.45, 11.15, 11.45, 12.0, 12.5, 12.45, 1.55, 2.15, 2.45, 3.15, 3.25, 3.55

H.—SPECIAL SCHOOL—PHYSICALLY DEFECTIVE CHILDREN—*continued.*

	Class 3					*Infants*				
	Mon.	Tues.	Wed.	Thurs.	Fri.	Mon.	Tue.	Wed.	Thurs.	Fri.
9.10	Assembly of children and Religious Instruction									
9.30	Practical Exercises and Number Activities					Handkerchief Drill			Discussions	9.40
9.50 10.10	Physical Exer., Remedial Exer., Music & Movement					Reading				
10.30	Milk Break									
10.45	Reading		Group and Individual Work			Number Activities				
11.15	English, Written Work, Drama, and Remedial Work					Free Play				11.20
						Writing Exercises				
11.45	Literature	Music	Literature	Music	Literature	Singing Games	Games	Singing Games	Games	Singing
12.0	Toilet									
12.5	Dinner and Play									
12.45	Rest									
1.55	Remedial Exercises and Organised Games									
2.15	Speech training, Drama	Project Work	Geog. and Nature Activities	Art and Craft	Literature	Toys and Projects	Singing and Dancing	Art	Singing and Dancing	Project
2.45	Gardening & Nature Study			History	Adventur.	Games				3.5
						Story		Dramatics	Project	Poetry
3.15 3.25	Art and Craft		Games	Activities		Expression Work	Nature Study	Toys (Activity)		3.30 Toys
3.55										

H—SPECIAL SCHOOL—PHYSICALLY DEFECTIVE CHILDREN —*continued.*

NOTES ON TIME-TABLE

1. The time-table is designed to meet the present needs of a school in which boys and girls between the ages of 5 and 15 are organised in four classes, the first classification being according to age and social maturity.

2. The wide range of attainment in any one group (the range of attainment has been found to be as much as 6 years in a group of 7 and 8 year old children) makes necessary a further re-classification for remedial and practice work in reading and arithmetic in the two junior classes.

Except in special cases, the infant class where a different approach is necessary, and the senior class which is kept intact as a means of developing and maintaining a senior atmosphere, are exempt from this arrangement. The same individual methods, however, are used in the senior class to meet the needs of children of widely different attainments.

3. Further re-groupings are made for Physical Training and Shower Baths, for some crafts where there are similar sex differences, and for music. It may be noted that at dinner members of all the classes are found at each table.

4. Generally, work in the basic skills, physical training, and music, occupies the morning session, the afternoon being devoted to social and creative activities.

5. The Staff are asked to use differential standards in observing the time-table. Precise timing is necessary when coaching groups are drawn from two or three classes. At other times it has been found necessary to indicate at what times certain rooms and equipment are available for a class. The labels used for the long afternoon periods suggest a balance of activities but are not necessarily closely observed. In the junior groups "Geography" and "History" indicate that some aspect of human affairs as they interest children, is studied by activity methods. Generally, the aim has been to provide time blocks which make activity methods possible, and make it possible to concentrate for a week or more on one aspect of the chosen programme.

CHAPTER XII

DISCIPLINE

ONE of the most overworked words in the English language is that which has to be used for the title of this chapter. It is used for conceptions which vary so widely that they are completely contradictory, and this fact accounts both for the heat which discussions upon the subject of discipline are so often apt to engender, and also for the futility of such discussions. It is customary to speak of the discipline of an army, or of a nation, or of a political party; it is often said that certain subjects included in the curriculum have a disciplinary value; in schools there is to be found the "new" discipline, "free" discipline, or just plain discipline. There is the discipline which the individual imposes upon himself, that which he accepts with membership of a group or party or community, and that which is imposed upon him by external circumstances. There is a discipline imposed upon one by material things, by inert matter; the machine imposes a kind of discipline upon people living in an age of machines. There is a discipline imposed by individuals upon other individuals—either by agreement or by force. There is a discipline which is self-imposed; the price which one is prepared to pay in order to achieve desired ends.

It is not often realised that this matter of discipline goes to the very roots of our conception as to the meaning and purpose of human life. It is because of this and because of the prejudices aroused, that discussions upon the subject are often bitter and that disciplinary actions are so diverse. The views one holds as to the purpose of life, the function of the State, and the nature of men, must inevitably determine the conclusions one arrives at with regard to the function and purpose of discipline. Hence arises the common error that discipline is something which is necessary for children and adolescents but has no connection with adult life. For many people look upon the kind of life they live as adults as satisfactory and the only sensible kind of life, and therefore look upon discipline as a process devised to produce the same kind of life in children. Their view of the purpose of life is the kind of life they live themselves; their view of the purpose of discipline is the reproduction of themselves in their children.

It is therefore necessary to stress once more that the school organiser must be clear in his own mind as to the purpose and

function of the school in relation to that of the State before he can develop any sound theory regarding the nature of discipline and any consistent action based on such theory. Otherwise his discipline will be either traditional or capricious. It will depend in the one case upon what he found in practice when he became a practitioner and in the other upon the mood and impulse of the moment. In neither case will he comprehend the real motives for his disciplinary acts, and through lack of understanding will only be able to apply them in a way devoid of all understanding of the real problems involved. Just as the accommodation, the staff, the equipment, the curriculum, and the time-table of a school must all be provided for and directed towards the achievement of the purpose of the school, so must the discipline to which both staff and pupils submit be devised as an instrument to serve the same purpose.

In the first place the purpose and method of school discipline develops from the view held as to the nature of children. There is the aim to be achieved, the object of the whole educative purpose. The means by which this purpose is to be gained will obviously depend upon the kind of raw material with which it is possible to start the process, *i.e.* upon the nature of the child. Conflicting views as to the nature of the child will lead to conflicting views as to the essentials of the educative process even when there is agreement as to the desired end of the process. In all ages adults have been willing to be more dogmatic than inquisitive about child nature. This fact has delayed enquiry and has been the source of many disciplinary measures which have been harmful to the child rather than helpful.

Mediaeval theology held that the child was born evil and had to be made to be good. Since the child was evil, he would undoubtedly want to do those things which he should not want to do, like playing with mud and getting dirty, and pulling things to pieces, and so on. He must therefore be made to do the things which he did not like to do, like Latin and mathematics, and washing his neck. When he had been made in due course to be acquiescent and to "like" these things, he was a "good" child, *i.e.* he had become conditioned to the likes and dislikes of the adults in his community. Here can be seen the origin of the kind of discipline which held sway in the educational system for so long. Its roots lie in a theological theory as to the nature of the child; discipline was the means of endeavouring to change this nature into the kind of nature approved by the adults who controlled the child. The rightness or wrongness of this conception of discipline, either in the

whole or in part, is not under discussion at the moment. It is the roots of the disciplinary process for which a search is being made.

It is from Rousseau that another and opposing conception of discipline arose. The mediaeval theologist had held that children were born in sin and were inherently evil, and had to be made good by the adults who surrounded them. Not so, said Rousseau. Children are by nature born good, and are only made evil by the baleful influences of the adults by whom they are surrounded. If only the adults would leave them alone, he argued they would remain good. Life as lived by most adults has corrupted them, and they in their turn corrupt the children.

This theory clearly reverses the educational process. Whereas the earlier theory demanded that the child should be forced to participate in activities selected for him by the adult, the theories of Rousseau implied that the child was more competent to select his own activities and more likely to choose those which would minister best to his development. In much current educational practice there will be found disciplinary measures derived from both theories, often without realisation of their origin. On the other hand, some of those engaged in educational work maintain in practice, if not in theory, the old mediaeval point of view. Others, again, go the whole way with Rousseau, and would hold that for any child the only real discipline is that due to the environment in which he finds himself. This view necessitates the holding of certain views as to the nature of the child's environment and the function of adults in it, and to these points it will be necessary to return at a later stage.

Recent years have witnessed a great development of research work in connection with the nature of children and various aspects of the educational process. Few would to-day subscribe to either extreme theory which holds that a child's natural endowment is either entirely good or entirely evil. It would be more generally accepted that the young child is a bundle of potentialities, some of which are potentialities for good and some for evil. It must even so be remembered that in many cases the decision as to which are evil potentialities and which good ones depends upon the standards of the community in which the child finds himself, or those of the little group of which he is an intimate member. It is true that some virtues, like tolerance and a desire to know the truth, may be the objective of all cultured people, but many of those things classed as good or evil are dependent upon geographical and historical factors. The bundle of potentialities which is the child has to be developed so that he can take his place in his society, and so that

he is pliable enough to "go a little further" if circumstances so permit. This means that his native endowment has to be the base camp from which he starts on his march to adulthood. Some potentialities have to be developed, others have to be sublimated; some encouraged, some discouraged. This all means that the difficulty of the disciplinary process is increased and that its problems are by no means all solved. It means, too, that the importance of the very early pre-school years is increasingly recognised, and that pre-natal influences may also have important effects. It is increasingly recognised that many problems of school discipline originate in these early years, and that there are "problem parents" and "problem teachers" as well as "problem children."

The difficulty of devising a disciplinary process (using these terms to mean a process whereby the development of the child is normal, a source of joy to himself and of benefit to his fellows) is difficult when there are conflicting standards of value in the home and in the school. A boy of ten was brought up in a home in which every member of the family—and it was a large one—was a thief. It was a virtue to "pinch" anything—from goods on the market stalls to coal on the tip. The only crime was that of being found out, and even this elicited only the sympathy of the other members of the family. Under such circumstances any direct teaching about honesty was just useless. It was the language of another world. By the age of ten this lad had come to view thieving as normal; honesty was an alien virtue. In *No Mean City*, that terrible picture of slum life in Glasgow, Johnny has two potentialities—courage and physical strength. In the story of his development in the environment in which he found himself one sees the inevitable utilisation of these qualities in gang warfare and in attaining the position of the gang leader. In another environment these same qualities could have been used in such a way as to bring satisfaction and joy to Johnny and benefit to his fellow men.

The problem therefore becomes wider than that of the native endowment of children, difficult of determination though that be. It becomes one of how to develop the potentialities of children, of how to provide them with the environment which will be at one and the same time stimulating and encouraging of growth of all potentialities of value. It means a recognition of the fact that potentiality is as varied as life itself, and that the possession of the virtues of any particular adult or group of adults (parents or teachers) is not alone necessary to salvation. A boy who had been unsuccessful and unhappy in most of his school career, suddenly

found that he had the ability required to do a certain manual operation. The joy which this brought to him removed at once all the disciplinary problems in which he had been concerned, and they were many. And not only did the boy find satisfaction and joy in using and developing his new-found powers, but the school community benefited thereby.

The potentialities of the children have then to be developed in order that the individual may have a satisfactory and worth while life, and also in order that the community of which the child is one unit may receive a maximum benefit from the development and utilisation of his potentialities. To look only to the welfare of the community and to force individuals into a procrustean mould is the way of the totalitarian States. To look only to the individual is impossible in a world where space has been annihilated and in which people are forced to live together and work together. There must be found and developed that balanced conception of life in which a proper blend of individual and communal activities makes life as joyous and as worth while as the stage of mankind's progress permits. And the whole of the discipline of the educative process must further this aim, whether it be self-discipline or external discipline, the discipline of the communal or school law, or the discipline imposed by the interest or the will of the individual.

So far then, as the inherent nature of the child is concerned, the mediaeval theological view of discipline has to be discarded, but so has the extreme form of the doctrine of Rousseau. The truth is only to be found in more wisdom, more knowledge of the nature of the potentialities of the child, and of the measures which may best be taken to develop these. But there is another point of view from which this matter of discipline can be viewed. Every moment of life is subject to a discipline of one kind or another. The difference between moments is one of quality more than quantity. The child may be more disciplined through his contact with adults; the adult more controlled by his closer contact with the community and its mode of life. The child is at least partially sheltered from the outside world while at school. It is true that the good school and the good community would follow one on the other without too great a break. It is true, too, that the child should be brought to the stage when he can stand alone without being dependent on the adult support. " It is expedient for you that I go away " was the end of one great teacher's philosophy, just as " I came that ye might have life and that ye might have it more abundantly " was the beginning. But throughout life the emphasis on different aspects of the disciplinary process varies and shifts. If the whole

of life is a discipline, what special aspects are of importance during the years of childhood and adolescence?

In the first place all discipline arises in one of two ways. There is *external discipline*—that imposed in some way or another by the environment. It may be imposed by the actual nature of material things, or it may be imposed by the other human beings in the environment. In the latter case it may be accepted freely by the individual or imposed upon him. Then there is internal discipline, that imposed by any individual upon himself. This analysis gives, therefore, the following classifications:—

(A) External Discipline. (1) That due to the material things in the environment. (2) That due to the other individuals in the environment. (*a*) That accepted willingly. (*b*) That imposed by some kind of force.

(B) Inner Discipline. That imposed by the individual upon himself.

It is commonly agreed that the individual tends to become free in so far as he can substitute (B) for (A) (2) (*a*). The discipline of the pupil who can be left alone, of whom the teacher can believe that it *is* expedient that he shall go away is a blend of (A) (1), (A) (2) (*a*) and (B). In such (A) (2) (*a*) will ultimately become part of (B).

The child has to learn then the discipline which arises from the material things in his environment. He has to become aware of the fact that fire burns, that iron is heavy, that paper tears, that china breaks, and that ink smears. All this implies experiences with the material things in question. A child with a restricted and poverty-stricken environment will lack the necessary experience to enable him to acquire this discipline. It should be noted that it should be acquired rather than told. Telling a child that fire burns and paper tears can never be so pregnant in the developmental stage of children as letting the child experience these facts for himself. So a wide but wisely planned environment is essential to every child, and in it alone can this necessary aspect of discipline come to the child. Subsequently he learns that wood can be used for this purpose and metal for that. He comes to know the peculiar qualities of concrete or plastic substances in craft work. All the time he is learning the lesson that his desires cannot be given full and immediate expression, and that one factor which limits them is the material available and its peculiar qualities. He is in bondage, as it were, to the material; he cannot force it to do his will unless

his will first takes full account of the qualities of the material. But using these qualities he enjoys a greater freedom than before, for he knows their proper functions and can use them to the greatest capacity. This is one of the great lessons of any disciplinary process—that restriction in one direction does not necessarily mean a loss of freedom but may actually lead to increased freedom in another. Increased freedom always lies in the direction of the utilisation of the greatest potentialities.

But there are other things in the growing child's environment besides material things. There are other children and adults. Other children may affect his actions and adults may thwart him on one occasion and encourage him on another. To the child these restrictions may seem arbitrary in comparison with those imposed by material things, as indeed they often are. The iron is *always* hard and the water *always* wet, but adults are not always equally consistent in their actions. This is one of the child's real difficulties with respect to the discipline that arises from the presence of other people in his environment. It shows how essential it is that those who are brought into regular and necessary contact with children should give earnest consideration to all of their actions which may affect the children.

The child needs a secure background from which he can conduct his adventures in life, and this background can only be supplied by the real love (not sentimentality) of the adults who are in close contact with him. It implies two things. In the first place there must be a consistent attitude by the adult towards the child, and this attitude must be based upon real love for children, for only this will lead to a proper understanding of their difficulties. It is no use pretending to a child, for no one senses the sham attitude so quickly as a child. Children adopt the physical traits, the mode of speech, and the attitudes of mind of those adults with whom they are in close contact. A graceful carriage, a pleasant voice, or a taste in dress, is acquired more easily and lasts much longer than many a formal lesson. So, too, with intellectual honesty, sympathy, tolerance; so, too, with the hypocritical attitude which in effect tells the child to " do as I say and not as I do."

A second constituent of the background of security is the necessary minimum of rules—or laws of the community of which the child is a member. These should concern only essential things, should be a minimum, and should be invariable in their application. They should, of course, be positive and not negative. " Thou shalt " is more effective than " Thou shalt not," and the latter is a challenge to many children. There must be the opposite challenge

to do something, not the denial of action without a substitute activity. If rules are made they must, it has been said, concern essentials. To frame rules to deal with non-essentials is to encourage the attitude of mind which ultimately results in a command being necessary before any action is attempted. If the background of security is needed so, too, is the field for adventure. The fewer the rules the better—they are known, their purpose is understood, and their observance is made more likely. Disregard of such rules must have definite and certain results, no matter what trouble results to the framer of the rules. If the child once comes to see that sometimes the rule is enforced and sometimes overlooked, it will be prepared to gamble on the result of action contrary to it and consider himself unlucky if in his particular case any punishment follows. A sense of injustice develops, for the child wonders why one breach of the rules by one of his fellows is allowed to pass unnoticed while the same breach by another pupil is noticed. The young teacher should never be tempted to multiply rules. Such as are laid down should be clear, well thought out, and invariably applied. Once a child realises that the rules are just and justly applied he is on the way to accepting them himself. They cease to be wholly external; he realises the need for them and for their observance. He has begun to be a willing member of a law abiding community.

The educative process is not confined to the schools, not even to those years in which the child or adolescent or young person is in attendance at some kind of educational institution. The physical and human environment in which he finds himself is bound to exercise an educative effect upon him. It " disciplines " him in the sense that it permits certain activities and forbids others. He may come in time to accept the discipline of his environment either passively or willingly. He may protest against it and become a rebel. The point to be remembered is that discipline is not an end in itself. Merely to be disciplined, whether by external or by internal motives, is to be mechanical. Like the schools themselves, the curricula, time-tables, and equipment, discipline is a tool to be used in the achievement of an end. It is round about this point that argument so often develops. If the full end is not grasped by any individual, or group of individuals, how much, if at all, must they be disciplined " in their own interests " ? The problem is, of course, political and theological, as well as educational. In another form the problem is this. Is it possible to state the aim at various stages of development, in such a way that it appeals to those who have reached such a stage, and to devise a discipline appropriate

to the stage reached but which is dynamic in the sense that it urges those subject to it forward to the next stage? This is the core of the problem of discipline in schools. A formal rigid discipline, one which conditions children to the attitude

> " Theirs not to reason why,
> Theirs not to make reply "

can only lead to the same attitude in adult life. Such an attitude is the negation of education. It means unreasoning and uncritical acceptance of beliefs and orders, and is only desirable in the servile state.

The adult stage of development is reached when the young person has so far progressed that the wise teacher or parent can say with confidence, " It is expedient for you that I go away." Then the discipline to which he is subjected through the human elements in his environment has become something for which an inner sanction has developed. He has developed his own sense of values, and he judges his actions in the light of these. This does not mean just passive acceptance of everything he finds about him. But it does mean that he will realise that he must curb some of his actions in order that he can carry out others. It means a realisation that life is a process of " give and take," and that true freedom comes through an understanding of those forces which inevitably control man's activities.

Finally, there comes the stage when the developing individual realises that there are forces which originate within himself which have to be disciplined. In the early stages of development it appears to the child that the forces all come from without. The material cannot be bent or twisted or broken to serve his purpose. Adults conspire to thwart his aims. Generally he comes to realise that there are inner forces which affect his life, urges that have to be controlled or encouraged as the case may be, and potentialities that have to be stimulated and exercised, sublimated, and controlled. Ultimately he comes to see himself, not as a battleground of conflicting forces, but as a rational being, and " captain of his soul," submitting to the nature of the material world in order that he may the more freely make use of it in his service, considering the wishes and desires of others and co-operating with them in communal life, limiting his freedom thus in some ways in order to gain greater freedom in other and more essential directions, knowing the strength and weakness of the forces within him and controlling them in accordance with a scale of values which education and experience have built up within him. This partnership of education and

experience must be recognised. Not from education in the formal sense alone are the values of each individual built up. Parents, playmates, and workmates, the " mental climate of the age," all the factors of time and place of existence go to make up that complex of feelings and ideas which constitute the background against which individuals judge the worth-whileness of things. This accounts for the fact that action and belief are often contradictory. To give order and consistency and unity to this same complex is the major task of the educative process.

This general discussion on discipline may be summarised as in the following table, although it must be remembered that there is not in practice the clear cut distinction that theory might indicate. In any one act there may be involved relationships with the material world, with other people and with one's own inner forces. But for the purpose of discussion the tabulated statement may be of value.

DIAGRAM XXXIV

(A) The Discipline of Things— due to the nature of the constituents of the material world about us.	(B) The Discipline of People— due to the impact of the actions and thoughts of others upon us.		(C) The Discipline of the Self— due to self-control of forces arising within us and regulating our relationship to other people and to things.
	(*a*) imposed arbitrarily at the will of others.	(*b*) accepted willingly as leading to greater freedom.	

Generally speaking, the process of development is from the left to the right of the above table. The discipline of things is external, but a recognition of it and a submission to its laws is the only way to creative work in any material. " Freedom only comes after years of bondage," and it is only the individual who has learnt to submit to the discipline of his chosen medium that can use that medium creatively. The discipline of people can be either of two types—it may remain always an arbitrarily imposed discipline, or it may, in some spheres, be willingly accepted in order that greater freedom may be gained in others. In other words, it may be that totalitarian discipline which controls all thought and action, or it may be the discipline of the truly democratic. The great danger to all educators is to succumb to the first of these alternatives because of its apparent effectiveness. To control others with an

iron discipline looks efficient. But it is actually efficient only in a limited sphere. It may be true that some individuals prefer to have their lives directed for them and to be spared the effort of thought. It may be that some other individuals like the rest of the world to be submissive. But the inevitable consequence of such a régime is the decay of those very qualities which have been most active in human development. The only truly disciplined person is the one who is aware of the necessary limitations and uses them in the spheres where greater freedom leads to objectives of greater value. This should be the ultimate aim of all school discipline.

It is now possible to discuss the various devices which are usually employed in schools as aids to discipline, for it is now possible to assess their value against a background of principles and not in isolation. In the main these devices are concerned with one of two problems. These are—

(1) Devices which influence the motives by which action is caused.

(2) Devices which concern the instrument of human discipline —whether it shall be entirely the staff or whether it shall include the scholars themselves.

(1) Devices which Affect Motives.—It is clear that all such devices can be classified as either (1) rewards, or (2) punishments. Included in the former class are all such things as marks, prizes, attendance rewards, badges, banners, caps, etc. The latter class would include corporal punishment, censure, impositions, deprivations, etc. The whole question of rewards and punishments needs very careful consideration. The mediaeval theological discipline to which reference has been made was based upon a system of rewarding excellence and punishing failure. And it may be well maintained that since modern society rewards the successful and penalises the failures amongst its members, the children in the schools of the community should be trained to accept these motives to action. So the " Board " pats the Head on the back, the Head passes on the pat (or some of it) to his staff, while the staff share *their* pat with the children. The external reward must always be in the nature of this pat on the back. The " pat " may be literally a pat, or it may be marks or prizes, the cap, or the badge. What can be said with regard to such a system of rewards?

It is often argued that children, being immature, find such rewards necessary, and this would seem to imply that they should be most in the Infants' School. Yet it is at this stage of education

that they are rarely found. It would appear that so long as competition is an essential part of our social system, so long as " the pats on the back " are the rewards of successful effort in adult life, so long must they form part of the educational system set up by society as an institution to maintain itself. It is not without significance that marks and prizes take a much more prominent place in the Secondary School than they do in the Elementary, although the use of marking systems appears to be spreading in the latter. It must not be overlooked that in many cases marking systems are used to chastise and encourage the teacher as well as the scholar. Poor marks gained in an examination may result in censure of the child; just as frequently they result in censure of the teacher concerned.

If marks are to be given, care should be taken to see what it is they measure. The only factor they should be used to measure is the individual child's effort compared with his capacity. It is foolish to expect a child with an I.Q. of 90 to be capable of measurement on the same scale of achievement with one who has an I.Q. of 120. To do so is to compare unlike things. Further, the child with the low I.Q. is always gaining lower marks than the other. This can only develop a sense of superiority in the one child and a sense of inferiority in the other. It is indeed a lamentable thing when a child leaves the formal stage of his education with a sense of his own inferiority already impressed upon him. Any good marking scheme should be devised so that it is the ratio of effort made to capacity that is measured. This can be done in a simple way, even in the Infants' School. The point is that praise or censure must be based upon the child's own capabilities and progress, and not upon those qualities in a superior child or in some mythical " average " child. If the Headmistress sees two or three children's work each lesson—either children who are making real efforts to improve or who are not progressing as well as they might, she can, if she sees them individually, compare their work with their own previous work and praise or censure them accordingly. Further, if there is that confidence between teachers and children which is the mark of a good school, she will frequently be able to discover the reason for backsliding, and deal with the matter as an individual problem without arousing a sense of inferiority in the child.

This plan can be extended to older children. In a Secondary School where weekly and monthly marks were an established institution, the following system was once adopted by one specialist. At the beginning of each term the boys themselves turned down the page of the book in their previous term's work which they con-

sidered represented their best work up to date. During the current term any work of this character received a standard mark of 6, any work inferior to it was marked less than 6, any work superior received more than 6. The result was that any competition that developed was with the boy himself—his effort was to improve on what he had already accomplished. Further, he was willing to admit that it was fair to give him less marks if his work fell below his own standard. The less able boys felt that on this system they could compete on level terms with the more able boys, while the latter did not use their ability to avoid real work. It avoided the usual state of affairs whereby half a dozen boys were at the top of the form—not by effort but through ability, while others were as consistently at the bottom. Such a result is evil for both classes. In one it breeds a sense of superiority and over-confidence; in the other a sense of inferiority and failure. It is the effort to use the capabilities possessed that is the factor that needs to be encouraged. In the case in which this system was applied a boy who had never won a prize before secured one. And the other boys agreed wholeheartedly that the effort he had made warranted his success. A further extension of the scheme saw the boys marking their own homework, awarding the marks which they thought they had earned. If any member of the class thought a boy was overmarking then an appeal could be lodged. This was rarely done and still more rarely sustained. There were some cases of alleged undermarking, but the system did avoid some of the over-emphasis on external success which vitiates so many marking systems.

Honours Boards are another form of reward, and again, can be used or abused. If the idea is spread through the scholars that the winning of a Minor Scholarship or the passing of School Certificate is the criterion of success in school life, then the use of Honours Boards can be a positive evil. Only a few children from any Junior School can win scholarships, and the success of the school does not depend upon the achievements of these few so much as upon the effect of the educational process on the many. If a Junior School has an annual output of 50 children, the fact that half a dozen of these are to proceed to the Secondary School is certainly something creditable. But there are 44 others, and their welfare and their capabilities are ultimately of greater importance to the community as a whole.

There is a tendency always to concentrate on the things in which we are most successful and to neglect those at which we are not so good. This is very true of schools—and it is not right to concentrate on the few successes in one sphere and then to overlook the failures

in another sphere. On the whole, an Honours Board reserved for academic successes only may easily warp the whole outlook of a school. The good " social " child and the good craftsman get no recognition. The variety of human endowment and human effort is so great that it would seem to be impossible to devise a scheme whereby all forms of merit can be recorded. It is, therefore, preferable not to single out one kind of achievement for special commendation and record. For there is always the question of what has become of all those whose names are not recorded on the Honours Board.

The question of what punishments, if any, should be used in schools is one which has been much debated in recent years. Punishment is always negative, a deterrent and not a stimulant. A conflict is always liable to develop between the child punished and the person responsible for the punishment. This conflict becomes more acute when the punishment is felt to be capricious. The " just beast " may gain a measure of respect; the unjust one only develops fear.

Punishment may take several forms, ranging from mild censure to corporal punishment. It may be in the nature of deprivations or consist in the giving of impositions. It may be physical or psychological, although as a matter of fact all forms of punishment consist of a mixture of the two in various proportions.

Modern educators have moved far from the position taken by the adherents of the old adage, " Spare the rod and spoil the child." The use of corporal punishment in schools has diminished in recent years, and this process is continuing. The actual position is that any such punishment which is inflicted must be reasonable, not inflicted in anger, and not harmful to the child. The exact amount of it, and the date upon which it is administered must be entered in a Punishment Book which *must* be kept in each school. Some Authorities have regulations restricting the right to inflict corporal punishment to the Head Teacher, while other Authorities permit the power to be delegated to Assistants. Any teacher joining the staff of a school should make himself aware of the regulations of the Authority in this matter.

Any corporal punishment inflicted should only be given in accordance with the rules. Such practices as the rapping of knuckles with ruler or pointer, the slapping of the face with the open hand, prodding or pushing with the fist or knee, and such like are all to be severely condemned. They are particularly undesirable in a school in which orthodox corporal punishment is forbidden. A ten-year-old boy once wrote in a composition on the subject of

" My Teacher," " My teacher keeps a ruler in the waste-paper basket under her desk "—and he was right. The only effect upon the child was to teach him that if one could inflict corporal punishment and get away with it, it was a thing to be commended.

Whether any corporal punishment at all should be inflicted is a matter upon which every administrator must come to a conclusion. At one end of the disputants is the man or woman who holds that force is always unnecessary and undesirable, negative in its result on the child, and brutalising to the one who inflicts it. It is argued that when the child's interest is aroused and when there is a satisfactory relationship between the child and the teacher, it is entirely unnecessary. Love causes growth and expansion; hatred leads to a stunting and contraction. The extreme view to this is that which holds that " reasonable " corporal punishment is the most efficacious and least harmful way of impressing the need for a certain type of behaviour upon the undeveloped young of the species. From one point of view corporal punishment is a " lazy " means of control. It obviates the necessity for close investigation into the reason for the behaviour. It assesses the act (an external thing) and not the intent (an internal one). It may lead to external obedience and internal rebellion.

The success of a teacher depends largely upon whether he possesses the qualities of real adulthood. If he or she has these, the respect of children will be readily commanded. If, on the other hand, the teacher has not grown up, but is a child with the powers of an adult, there will be no respect but only a resentment of any control exercised. If the teacher is interested and interesting, and is possessed of that imaginative insight which enables one to realise the problems of childhood, then the response of the child will in the greater number of cases be forthcoming. Where such a relationship is established there will be no need for corporal punishment. There may be rare cases, exceptions which prove the rule, in which corporal punishment may be used as a last resort, but such cases *are* rare. The following is a typical case. A class of 70 boys (the story is some thirty years old) in a specially difficult school in the East End of London had got entirely out of hand owing to having had a master incapable of maintaining any semblance of control. A newly appointed teacher took charge of the class, and it became evident that the class were awaiting a move by a 14-year-old boy who was their " gang " leader. Efforts to enlist this boy's influence in the real interests of the class proved ineffective and, choosing his occasion, the boy became openly defiant. The master responded by giving this boy drastic and

instantaneous corporal punishment. Whereupon he became the new "gang" leader, and the influence of the old boy leader waned. Before long he accepted the position, and in fact became a useful and co-operative member of the class. Further, during a three years' stay in that particular school the master concerned had no occasion to use any form of corporal punishment whatever, nor had he even to threaten to use it. This example is not intended to prove that corporal punishment is right; it suggests that on very rare occasions and with exceptional boys it may be necessary.

Many teachers who take pride in the fact that they do not use corporal punishment, use censure in such a way that it is infinitely more harmful to the children. To make remarks on a child's mentality, on its clothes, or on its personal cleanliness, before a class of its fellows, is to be guilty of an act which may cause acute suffering to the child. There is no virtue in abolishing corporal punishment if a more cruel form of punishment is substituted for it. It is easy for an adult to be sarcastic, scornful, clever, to a child. Commonly the child cannot answer back. If he dares to do so "impertinence" is added to the list of the crimes of which he is guilty. Many children would prefer corporal punishment inflicted by a just but hard adult who was not vindictive, to the continuous stream of gibes which sometimes replaces it. If corporal punishment is abandoned, then psychological punishment must be such that it does not do greater harm to the growing child. This means that any censure or praise given to the child must arise from a proper relationship between the child and the teacher. This must be based upon respect by the child for the adult qualities of the teacher and upon respect by the teacher for the growing individuality of the child. The quiet word will then effect what corporal punishment will fail to do. But the voice must be quiet and confident, not strident and loud. To think that an order will be carried out because it is shouted is a mistake which may have arisen on the barrack square. The shouted order produces rigid and unthinking discipline. The quietly spoken word commands inner acquiescence.

Censure, then, is a form of punishment which needs careful use. It should never be used to produce shame in a child in front of its fellows, nor should it be a threat, or be employed to give rise to fear. It can be used to stimulate, to arouse a desire to do better, to arouse a sense of inner dissatisfaction.

Deprivations form a group of punishments which are effective by reason of the fact that the child has something taken from him which he prizes. The thing of which the child is deprived varies over a very wide range. Pocket money, half holidays, play-time,

the use of toys, the visit to the cinema, sweets, and so on are all things of which children of various groups are deprived by way of punishment. The great point to remember is that whatever he is deprived of the child must not be left with the feeling that with the thing withheld, there is also withheld from him the love of the teacher or parent. If he feels or suspects this, then emotional disturbance in his life is bound to follow. The child is apt to think of the parent or teacher as the provider of his little needs and the satisfier of his wants. True, he has to learn to be independent and to supply his own needs and satisfy his own wants. But if he feels that things he values are withheld from him capriciously he will resent it and often argue that he is not loved by those who do the withholding. Again, there must be reason and justice behind any deprivations. And the reason must satisfy the child and the justice of it be made clear to him. It is fatal to threaten a deprivation and then fail to enforce it because of the inconvenience its withdrawal may mean to the adult. If the child knows that a certain course of behaviour will lead inevitably to a certain deprivation he knows the consequences of his action. If the deprivation follows only sometimes, he is justified in " taking a chance."

Impositions have gone out of date. There is nothing to be said for a child writing pages of useless matter which he knows will be destroyed the moment he has finished them. Perhaps more could be said for the re-writing of work which fails to reach the pupil's own standard. But making the child do a job which he detests is not likely to be the most satisfactory way of overcoming his dislike of it.

(2) Devices which Concern the Instrument of Human Discipline.—The fact that adult laws and modes of conduct are not always those of children has been recognised in the movement for developing a certain amount of " self-government " in schools. There are, however, several points in relation to this movement which deserve very careful consideration. The prefect system originated in the Public Schools, with pupils up to the age of 18. It was adopted by the Secondary Schools with pupils up to the age of 16+. Now it is commonly found in Senior Schools with pupils up to the age of 14+. There seems to have been but little thought devoted to the question of the age range of the children concerned and the spheres (if any) within which they are capable of exercising self-government at various ages. Still less have the questions of whether they desire it and whether it is good for them been raised. It is useless to institute self-government in name only, *i.e.* to call self-government a system whereby the Head Teacher impresses his

or her views upon the prefects and they accept them and impress them on the pupils. Nor is it any value to have a system of " self-government " with a master or mistress always " just round the corner " to exercise authority. The first essential is to find those spheres in which children of certain ages can reasonably be expected to exercise control. These should not be concerned with the routine background of school life which is best settled by simple rules. They should form expanding spheres—more fields coming within the child's own control as his powers develop. Care should be taken to see that the child has sufficient knowledge of the facts to come to a right judgment—it is harmful to let him think he can judge upon insufficient data. This all implies that what is wanted in schools of different age ranges is not just reflections of the public school system of houses, house captains, and prefects, but a scheme devised to meet the knowledge and needs of children of the age range under consideration.

This problem has not received the consideration it merits. Its solution will do much towards practising the children in the democratic mode of life. It will teach them valuable lessons in the arts of self-control and control of others. Organisation of a school into Houses or Teams may be an evil thing if it leads only to competition between the respective Houses. It may be good if it leads to a desire on the part of members of the House to contribute most to the good of the whole school.

The organiser who would be consistent must link his or her theory of discipline with his or her theory of education, and consider then how it can be applied to children of the age and type to be found in the school. When this is done there will be a wholeness about all disciplinary matters which is bound to reflect in the inner life of the children.

CHAPTER XIII

EXAMINATIONS

A TWELVE-year-old boy in attendance at a Senior School was absent from his school one day in order to attend at the Clinic, since he had been reported as a likely candidate for admission to a Special School for mentally defective children. The following morning he re-appeared at his old school and one of his mates was overheard to say to him, " I thought thee were goin' to ' daft ' school ? " " So I was," said the other, " but I couldn't pass the examination."

During recent years no topic has been more fiercely debated as that of the place of examinations in the educational system. It is one upon which every one appears to have views. The expert educationist and the uninformed layman, teachers and parents, business men and " old boys " all feel that they are competent to discuss this question. And the views expressed range from a demand for the abolition of all examinations, through one for the establishment of a new type of examination, to one of extolling the virtues of all examinations. That most people have definite views on the subject is perhaps due to the fact that most people have experienced examinations in some form or another. The story quoted at the commencement of this chapter shows how deeply ingrained is the idea that to pass from one stage of education to another it is necessary to pass an examination.

Nor is the debate about the nature and function of examinations a modern one. The burden of examinations upon the young is a perpetually recurring theme in the writings of the educationists throughout the ages. There appears to have been always an uneasy feeling that the examinations resulted in undue strain upon those subjected to them, that they failed to mark out the keenest intellects; and that they cramped education into unnatural moulds. It has been recognised again and again that " they bound heavy burdens and grievous to be borne " upon the children in the schools; and yet they have persisted. The modern discussions have turned in general on the following questions. Are *all* examinations evil, and should they all therefore be abolished ? Is some kind of examination necessary, and if so, of what type should it be ? What kind of subject or parts of subjects can be examined and what form should the questions take ? How can the marking of the answers be made as objective as possible ?

The school organiser has to come to a decision as to his attitude to examinations, for in one form or another he will be brought into contact with them from the moment he puts his organisation into operation. Any school organisation set up at present will have to provide, in some way or another, for the examination of the teacher or the taught or both. This must be so, so long as one kind of ability is rewarded economically and socially more than other kinds, and so long as there is, at the conclusion of each stage of education, a diminishing provision for the next stage and a resulting competition for the places available. Here again can be seen an illustration of the fact that the purpose of education determines the institutions set up to give expression to it.

The functions which examinations are commonly supposed to perform are so varied that it is impossible for one type of examination to serve them all. Commonly one examination is supposed to serve two or more purposes, and in this fact lies the root of the objections to them. What may be a good instrument for one purpose is entirely unsuitable for another. Moreover, in an attempt to make it serve two ends the organiser almost inevitably makes it an unsatisfactory servant of either.

These many functions of examinations can be classified in a manner which brings out the diverse functions of present-day examinations. They are commonly used as—

(1) *Achievement Tests*, measuring
   (*a*) The achievements of pupils (i) Individual, (ii) Group class or school.
   (*b*) The achievements of *teachers*.

(2) *Tests of Ability*, measuring
   (*a*) The *potential* achievements of pupils.
   (*b*) The possession of qualities other than those *directly* tested by the examination.

(3) *Stimulative Tests*—spurring on both pupils and teachers.

Individual achievement tests are set for the purpose of determining whether a given pupil has, or has not, acquired a definite amount of knowledge of a subject. Group achievement tests are used for a similar purpose with respect to a whole class or school. It is less common to find examinations explicitly used for the purpose of measuring the achievement of teachers, but frequently the *results* of the examination are used for this purpose. The examinations of which the results are often used in this way are those included under 1 (*a*) (ii) above. Although the system of

"payment by results" has long since disappeared from the schools of this country, school governors, managers, administrators, teachers, and many of the general public often judge the success of a school by its examination results. Inspectors and Head Teachers are prone to try to ensure the maintenance of a certain standard of achievement by the pupils and teachers alike, by means of a periodic oral or written examination.

The first function of examinations is, therefore, that of measuring achievement. The second is that of *prediction*. Some examinations are assumed to possess the quality of being able to predict the *future* achievements of those submitted to them. There is, of course, a big jump here from the claim that examinations can measure present achievements. Such examinations—those assumed to possess predictive value—are used to bar the gate (or to open the gate—the metaphor used depends upon the point of view taken) between the primary school and the secondary school, and between the secondary school and the university, and, again, between the university and certain professions. The examinations are held to be capable of selecting from the candidates taking them those who are best fitted to proceed to the next highest stage of education or to enter certain professions. Similarly, examinations are commonly held to be able to predict in the candidates the possession of qualities other than the achievement or the promise of achievement in certain subjects or parts of a subject. The business man who insists that candidates for employment by him should possess "matriculation" or "school certificate" is not commonly in need of employees who have achieved, or who are capable of achieving, a certain measure of knowledge in the usual examination subjects. But he does believe that the candidate's ability to pass the examination indicates in some measure that he or she possesses an all-round ability which can be utilised in the day to day business of his concern. In addition, he believes that success in an examination demands such qualities as perseverance, industry, some docility to discipline, and calmness under pressure. These qualities are desirable in his employees, and he holds the view that in some way they are measured by the examination.

The third function of examinations is that they *stimulate* both the teachers and the taught. This is more particularly so in the case of the secondary schools and the universities. The function of examinations is not often stated explicitly, but so long as extraneous motives are those mainly relied upon in the educational system, so long must this be true. The contention is that examinations stimulate the students and keep the teachers up to

the mark. Until competition, the fear of punishment and blame, and economic reward have been replaced as educational motives by an appeal to the spontaneous interests of pupils and students, this function of examinations will continue to exist.

It is maintained by some that the only legitimate function of examinations is that of *guidance.* There are two aspects of this function, for examinations can give guidance

(*a*) *To the teacher*—for they can be used to determine where he has failed and where he has succeeded.

(*b*) *To the pupil or student*—for they can be used to determine and to some extent measure, abilities.

Considered from this point of view the function of the transfer examination at 11 plus is not to keep out pupils from secondary education, but to determine the lines upon which the candidates are most likely to do best.

In its attempt to fulfil all these different functions the traditional written examination fails to carry out any one of them satisfactorily. There are three main criticisms.

(1) It is argued that examinations dominate and distort the curriculum. This is particularly so in the case of the transfer examination which normally comes at the end of the Primary School course, and the School Certificate examination which comes at the end of the usual Secondary School course. Those subjects, or parts of subjects, which lend themselves to examination are over-emphasised, while the others are neglected. In the case of the school certificate examination attempts have been made to minimise this evil by the inclusion of practical subjects, such as Domestic Science, Wood and Metal work, etc. But the older traditional examination subjects like Latin, Mathematics, and History still hold sway, and certain parts of those subjects recur with unfailing regularity in one form or another. One of the virtues of a teacher of an examination form is his or her ability to " spot " questions. So, too, the transfer examination cramps the work of the Primary Schools, for it places an undue emphasis upon English and Arithmetic and, what is still worse, upon those parts of these subjects which are most easily examined. There is a resulting neglect of many activities which are necessary to the real growth and genuine development of the Junior School child. When it is remembered that only 15 per cent. of the Primary and Preparatory School population enter Secondary Schools, and 1·5 per cent. of the Secondary School population proceeds to a University the foolishness of restricting and warping the whole curriculum in the interest

of these few becomes apparent. It is easy to count up the successes won—the Primary School can boast of its tale of scholarships won, and the Secondary School of its list of matriculants. But for these there are many others for whom the restricted curriculum has proved unsuitable and who have only lost by the over-emphasis upon it. The true test of the Primary School is the number of children for whom it has made possible that development most suitable to the age of the children concerned. This is in itself the best possible preparation for the next stage.

Viewed in this way those who pass on to " academic " education are never the only successes, nor even the most important ones, of the Junior School. If they have been crammed and warped by their efforts to obtain a scholarship they may ultimately have to be accounted as failures.

(2) In the second place it is argued that examinations develop an unhealthy competitive spirit in children and lead to an over-valuation of the ability to memorise facts and processes. Examinations may act as an incentive, but they are not incentives to real learning. It is not only among children that the unhealthy competitive spirit is developed. Parents show it to an even greater extent. Similarly it leads to rivalry between members of the staff of a school, who compare in various ways the successes gained by the pupils of each of their colleagues. And the Head Teachers of schools compete with one another in a similar way. It is useless to argue that this competition is not present or that its effects are exaggerated. Contact with the examination candidates during the term in which the examinations are held or presence in a school-staff room before the examination and again when the results of it are known would convince anyone of the acuteness of the competition engendered by these tests.

(3) The third criticism levelled at examinations is based upon the psychological effects they have on many candidates. Success seems so imperative to many candidates. It may be that it is the one path of escape from the economic insecurity in which their parents have lived. In such cases the parents may exert such pressure on their children that harmful results follow. In other cases it may be pride that causes the parents to exert over-pressure. Is it true, for example, that parents in general (and teachers in particular) who have themselves been successful in examinations exert over-pressure on their children to follow in their footsteps? So, too, teachers exert pressure on children, and particularly on children who may, with just that bit of extra pressure,

be successful in the test (no matter if the final result is injurious to the child), in order to have ground for professional pride. This is not true of all teachers, of course, nor is it any reason for failing to prepare in a *normal* way, children who can profit by this work without strain. But it is a fact that many of the maladjusted children who are referred to the Psychological clinics either for advice or for treatment are found to be suffering from examination strain. It must be remembered that such investigations have only just been commenced. Lack of sleep, sickness, loss of appetite, are all signs that the child is suffering unduly. Upon the day of one transfer examination it was found in one area that there were 63 definite cases showing one or more of the above symptoms out of 600 candidates. And this figure does not represent by any means the total number of children suffering from undue strain.

In addition to the critics of examinations discussed above, there are those who maintain that the *unreliability* of examinations renders them useless for any purpose. These critics point out two facts which are the results of carefully conducted experiments. The first is that if the *same* examiner sets examinations in the *same* subject on two separate occasions, the marks of the pupils examined will be different—and often considerably different. The other fact is that if the *same* scripts are marked by *different* examiners they will be awarded *different* marks. It is necessary and important to analyse the causes of this variability, for it is clear that it must be reduced to a minimum in any examination which is to be of any value at all. The variability may be due to factors arising from

(*a*) The children. (*b*) The questions set. (*c*) The examiner.

(*a*) Factors Due to Children.—Children are not robots, and their performances depend upon a complex of mental and physical factors. Changes in these factors cause variability in performances on two separate occasions. What an examination is intended to do is to find the normal usual performance of the pupils. Neither of his extreme performances is an effective criterion.

(*b*) Factors Due to Questions Set.—The questions set in any examination can only test a fraction of the knowledge of the candidates in any subject. In other words, the questions test not the actual knowledge of the pupils, but only a sample of it. If the sample varies, so may the performances of the candidates.

(*c*) Factors Due to Examiners.—The questions may inadequately sample the candidates' knowledge and the variability of the children may lead to unequal performances even in these inadequate samples. Then these answers have to be marked, and

here arises the third great cause of variability in examinations. A single examiner may be inconsistent in his standard of marking on two different occasions. So, too, two different examiners may be inconsistent in their marking of a single set of papers. Further, there may be a difference of opinion between the different examiners regarding the relative merits of an answer. This is particularly so in the case of answers of the essay type. Different examiners may give marks varying from the minimum to the maximum for the same essay.

This criticism is based upon the fact that the evaluation of answers is *subjective*—dependent upon the examiner, and not as it should be, *objective*, and dependent only upon the content answer. It is in order to remove this subjectivity in marking that the new type of achievement tests have been evolved. An example of this kind of test is appended to this chapter. It should not be thought that tests in this form are not liable to error. They are: the difficulties due to an inadequate sampling of the candidates' knowledge remain, and so do those due to the unequal performance of children on different days. The examination process is divisible into three stages. There is—

(*a*) The process of constructing the questions.

(*b*) The process of answering them, and

(*c*) The process of evaluating the answers.

Now in the old essay style of examination there was a large element of subjectivity in (*c*) but not so much in (*a*). The new type of examination has eliminated subjectivity from (*c*) but only at the expense of adding to the subjectivity of (*a*). This is of necessity the case, and this point will be discussed later on.

Various substitutes for the traditional written examination have been suggested. Most of them fall into one or other of the following three groups:—

(*a*) Oral Examinations, Viva Voces or Interviews.—Oral examinations are of greater antiquity than written ones, and most of the arguments now put forward against the latter type of examination have at one time or another been used against the former. In an oral examination successive candidates are not placed in exactly the same situation. Even where the form of words to be used is standardised the examiner's tone of voice may vary widely. Anyone who has had experience of oral testing will be aware of this, and of the difficulty experienced in eliminating it. Unless the wording of the questions has been standardised this may also affect the situation with which the candidate is confronted, and

so, too, may the degree of encouragement or blame given. Again, the candidate may be subjected to greater emotional disturbance at an oral examination than at a written one.

(*b*) INTELLIGENCE AND SPECIAL APTITUDES TESTS.—These tests have been devised in an effort to measure *promise* rather than achievement. The general intelligence test is now widely used. The intelligence it is supposed to measure has been variously defined as "learning capacity," "educability," "innate ability apart from schooling," "originality, power of thinking, grasp of general principles." The tests now in use are of two types, (*a*) individual, (*b*) group. The former are used for the examination of individual pupils; the latter for the examination of a class or group of pupils. The latter can give information about a class as a whole, and the results attained by the individual pupils can be used to classify them in order as regards general intelligence. These tests are a development from the work of Binet and Simon. They endeavoured to standardise the information which normal children of various age groups could be expected to have. From this they devised tests (based on the standardised information) which such children could be expected to answer. If a child passed the tests appropriate to the five-year-old group, it was said to have a mental age of 5, and so on. Refinements permitted of the mental age being given in years and months, and as has been pointed out already the comparison of mental age with chronological age gave rise to the conception of an intelligence quotient. Subsequently other tests were devised, and now a number of excellent standardised tests of general intelligence are on the market.

The results of these tests do not show complete correlation with either achievement, or with the results obtained subsequently by the pupils during their school and university courses.

It would appear that another factor or other factors are involved. It is here that tests of special aptitudes may prove to be of value. One difficulty in the use of such tests in connection with the transfer examination at the age of 11 plus is that these special aptitudes may not have developed sufficiently by the age of 11 or 12 for them to be accurately predicted. The question is how far candidates are able to apply intelligence *and* present achievements to the solution of new problems in any given field.

(*c*) CUMULATIVE RECORD CARDS.—One of the functions of many examinations is to provide a certificate of work done. This is true of the school certificate examinations of Secondary Schools and the degree examinations of Universities. These may be interpreted, as

indeed they often are, in another way, and used for prognostic purposes. But above all they are supposed to be a record of a course completed. The teachers should be fully aware of the work done and of the way in which it has been done, and so there is every reason for using teachers' records instead of external examinations. Another advantage which should follow from the adoption of such a course is that the variability of examinations due to sampling of the knowledge of the candidates should disappear. For the teachers' knowledge should cover *all* the ground where the latter can never cover more than a fraction of it. A still further advantage is that the teachers' records are made under ordinary working conditions from day to day, whereas examinations must inevitably be held under emotional conditions which are abnormal. Lastly, school records and their proper use as substitutes for examinations, should have a less degrading effect upon the educational values of teachers and pupils alike than examinations must have.

It may be argued, and with some truth, that teachers are as much liable to subjectivity as examiners, if not more so. A teacher is as subject to prejudice as other people, and personalities may clash in schools as elsewhere, with the result that one master or mistress may be quite incapable of reporting accurately upon a particular pupil. But if the pupils during their school careers are brought into touch with several teachers, the cumulative school record should yield a fairly reliable picture of the abilities and attainments of the pupils. The main danger is that the docile and receptive child may be ranked unduly high and the high-spirited and critical one unduly low. There is also the danger of "common-room judgments" replacing individual ones.

Such school records should be used to certify work done rather than to predict future promise. In the use of school records for predictive purposes a difficulty occurs, since the standards of different schools may vary widely. The best pupil from one school is not necessarily on the same level as the best pupils from another school. Errors in comparison may arise from either or both of two sources. One school may have in fact children of higher ability than any of those attending a second school, and also to some teachers all their geese are swans, while to others even their swans are rated as geese.

Two partial solutions have been suggested to deal with this difficulty.

(*a*) The application of a test of general intelligence to all pupils in the area from which the pupils are drawn for comparison, or to all schools under one authority. Valentine in his work *Examina-*

tions and the Examiners (1938) has made the following suggestion. A general intelligence test should be given to all pupils of 11 plus attending the schools under any authority. From the results of this it would be able to deduce the average level of ability and range of brightness in each of the Primary Schools examined. The total number of Secondary School places available in the area could then be apportioned to the Primary Schools, the greatest number being apportioned to those schools which the intelligence test had shown to possess the largest proportion of promising pupils. Within each school, the Secondary School places thus allocated would be awarded on the basis of the intelligence test results plus the cumulative record of the pupil's work.

(*b*) A second suggestion which has been made would approach the problem from the opposite direction. Essentially it is that the final marks which pupils had received in their Primary Schools should be recorded as should also their performances during their Secondary School careers. From such data would be determined the relative standards of the contributing Primary Schools. The number of pupils worthy of selection from each school could therefore be ascertained. It might be found, for example, that a pupil with 90 per cent. marks from one school might be likely to do only as well as one with 70 per cent. marks from another school. The objection to this suggestion is that it *assumes* that the performance marks obtained during the Secondary School course are a satisfactory measure of ability, and also a static school population.

Competitive examinations are a necessary evil so long as the number of Secondary School places available is less than the number of children desirous of obtaining secondary education and able to profit by it. They will last, too, so long as educational success carries with it an economic reward. If they must exist the most careful consideration should be given to means by which they can be improved. There are three main factors to be considered:

(*a*) The clear formulation of the quality or attainment which the test is to measure.

(*b*) The devising of questions suitable and adequate to measure this quality or attainment.

(*c*) The evaluation of the answers given.

(*a*) The first duty of an examiner or teacher is to formulate as clearly as possible in his own mind exactly what it is that he is going to endeavour to measure. He must be clear as to what is his objective or aim in the examination process. Further, as has been pointed out in other connections, he must be aware of the

relationship of this special aim of examination to the general aim of education. The ultimate educational objective determines the aims of examinations devised within the system. Examinations should never be ends in themselves; to make them so is only another way of maintaining that the objective of the educational system is examination success. Yet many educationists fail to make this necessary correlation of principles and techniques with the result that action and thought are in opposition instead of in collaboration. The objective of examinations may be different at different stages of the examination process. At one point it may be the ascertainment of the acquisition or lack of acquisition of traditional knowledge. At another stage it may be capacity to use the traditional knowledge as a base camp for further development.

Again, it is essential that teachers and examiners should review very carefully what parts of the total field of the pupil's knowledge is to be examined. This is particularly necessary when the examination takes the form of questions of the essay type. It is obvious that the questions set can only sample a portion of the field. The less essential parts must, therefore, be omitted, and the questions must deal with the vital parts. It is necessary to do this even at the risk that teachers may " spot " questions likely to be set beforehand. Further, the greatest care must be exercised to avoid the overlapping of questions, since this means that undue weight is being given to one narrow section of the whole field which is under examination.

(*b*) Having carefully considered the objectives of the examination, and having decided upon the parts of the field which are to be tested, the examiner or teacher has next to devise such questions as will be suitable for his purpose, and also the form in which such questions are to be set. This involves an ability on the part of the examiner to foresee the kind of answer which he is likely to receive. This imaginative quality in examiners is a big asset. It may come partly from insight into the minds of the pupils and partly through experience. It is only the possession of this quality which will enable him to set questions which are direct and simple, free from ambiguities and capable of only one interpretation. The questions must, of course, be appropriate to the age of the pupils. Much more care needs to be devoted to the framing of questions than is commonly the case. It is customary to view the examiner's task as one of examining and assessing the marked scripts. This is only part of his task, and it is not even the most important part. The setting of such questions as shall be appropriate for their purpose and unambiguous in their wording is his

foremost duty. If he is successful in this the task of marking the scripts becomes a less onerous one.

(c) With good questions, the marking of the scripts is less difficult but is still a task calling for great care. If the essay type of answer has been called for, a detailed marking scheme should be drawn up and adhered to. This precaution is particularly necessary when there are several examiners marking the scripts. It has been pointed out earlier in this chapter how variable the independent assessments of different essay type answers may be.

It must be remembered that the object of marking is to arrange the scripts in order of merit or the grouping of them into categories of merit. It is not an attempt to give an absolute judgment on the merits of each script. For this reason the answers to each question (where they are of the essay type) should be dealt with separately and before the answers to another question are dealt with. The categories of merit should be equally spaced over the whole range of the marks, and should not be greater than ten in number. The classification of the answers is much more likely to be satisfactory if those to each question are classified as separate groups.

There should be provision in all examinations for a re-examination of border line cases. The necessity for this is commonly admitted, and in itself constitutes one of the gravest criticisms of examinations. For it means that the liability of examinations to fail in the purpose for which they are devised is admitted. For if border line cases need revision, it is clear that others may not be too reliable. It is because so much may depend upon success or failure in a certain examination that special attention needs to be given to those cases which lie on the border line between success and failure.

Some examples of examination papers are given in the Appendix (p. 363) to illustrate the changes which have taken place in the type of question set in recent years. The influence of the type of questions used in the Intelligence Tests is obvious. It will also be observed that there is a difference of emphasis in the purpose of the papers. The earlier ones all set out to measure achievement, and it is clear that at this period the theory was that present achievement and future development were highly correlated. The later papers are more directed towards measuring ability plus knowledge of fundamental techniques. The need for potentiality comes first; unless there is promise of capacity to use the techniques, the mere possession of them is of no value. But ability is useless unless it has tools to use. So after ability the possession of the essential skills is tested. The student should note how this is attempted in the various papers (those lettered A-D inclusive).

CHAPTER XIV

TESTS AND ORGANISATION

THE preceding chapter has been mainly concerned with the use of various tests for the purpose of prognosis—the determination of ability to profit by a certain type of education. The present chapter is intended to show the way in which the tests now available can be used in order to improve the classification of the scholars in the school and so be of service in the organisation of the school. The practical results quoted in the course of the discussion are some obtained by Mr. N. E. Whilde, B.Sc., Psychologist to the Chesterfield Education Committee, in the course of his investigations.

Under the Hadow reorganisation one of the difficulties of the Junior and Senior Schools is the varying standard of attainment and judgment shown by the contributory schools. Where all the children entering a Junior School come from one Infants' School, or all those entering the Senior School from one Junior School, the problem does not arise. But where in either case there are several contributory schools it will commonly be found that standards of attainment by the children may vary as may also the standard of judgment of the staff of the promoting school. Even when a five point scale is used and children are classified in five grades as A, B, C, D, or E it will be found that in one case the tendency may be to place most children in the lower grades and in another case to place them all in the upper grades. Again, in one case the formal scholastic achievements of the children may be high for their age, while in a second case the formal work done may be of a lower standard. Any scholastic examination on entry would result in the perpetuation of a classification based upon formal acquirements at the age of transfer. It would take no account of potential ability or of other factors of importance. The belief that unsatisfactory original classification based upon insufficient data was responsible for some of the anomalies found in certain schools was the origin of surveys referred to below.

Three such surveys are included here. The first was carried out in a Junior Mixed School, the second in a non-selective Senior Girls' School, and the third in a non-selective Senior Mixed School. Each in turn will be discussed in detail.

A. Junior Mixed School

This school is organised as a six class school. Four classes (Standards I-IV) constitute the normal Junior School course. Classes I and II are classes organised for special treatment of children of lower academic ability. The survey was carried out in March 1939. In all, five types of test were given to every child—one to measure intelligence and the others to measure the basic skills of reading for comprehension, mechanical skill in arithmetic, knowledge of arithmetical methods, and spelling. The tests used were—

(*a*) For *Intelligence* the Scottish 1932 Mental Survey Tests, the Simplex Junior Test, and the Sleight non-verbal test were used for the upper, middle, and lower parts of the school respectively. In eight doubtful cases the Terman-Merrill Binet test was used.

(*b*) For *Reading for Comprehension* the Midland Reading Test (Comprehension).

(*c*) For *Mechanical Skill in Arithmetic* the Midland Test.

(*d*) For *Knowledge of Arithmetical Methods* the same series of tests (*c*) was used.

(*e*) For *Spelling*, Burt's Test was utilised.

The data obtained from the survey was classified as below.

(1) INTELLIGENCE.

Median Chronological Age of Group	*No. in Group*	MENTAL AGES		
		Lower Quartile	*Median*	*Upper Quartile*
Yrs. Mths.		*Yrs. Mths.*	*Yrs. Mths.*	*Yrs. Mths.*
7 9	53	6 10	7 6	8 2
8 9	55	7 0	8 1	8 11
9 8	42	8 8	10 3	11 1
10 10	53	10 8	12 0	12 7

(2) READING (COMPREHENSION).

Median Chronological Age of Group	*No. in Group*	ATTAINMENT AGES		
		Lower Quartile	*Median*	*Upper Quartile*
Yrs. Mths.		*Yrs.*	*Yrs.*	*Yrs.*
7 9	48	8·9	10·4	11·0
8 9	50	9·6	11·0	11·8
9 8	42	10·4	11·8	12·1
10 10	51	12·1	13·0	13·5

(3) Arithmetic (Mechanical Skill).

Median Chronological Age of Group		*No. in Group*	Attainment Ages		
			Lower Quartile	*Median*	*Upper Quartile*
Yrs.	*Mths.*		*Yrs.*	*Yrs.*	*Yrs.*
7	9	49	6·5	7·1	7·4
8	9	52	7·2	7·5	8·5
9	8	43	8·2	9·0	9·7
10	10	51	10·2	11·1	11·9

(4) Arithmetic (Knowledge of Methods).

Median Chronological Age of Group		*No. in Group*	Attainment Ages		
			Lower Quartile	*Median*	*Upper Quartile*
Yrs.	*Mths.*		*Yrs.*	*Yrs.*	*Yrs.*
7	9	50	7·7	8·8	9·2
8	9	51	8·1	9·2	9·8
9	8	44	8·8	10·3	11·3
10	10	51	11·3	12·3	13·1

(5) Spelling.

Median Chronological Age of Group		*No. in Group*	Attainment Ages		
			Lower Quartile	*Median*	*Upper Quartile*
Yrs.	*Mths.*		*Yrs.*	*Yrs.*	*Yrs.*
7	9½	50	7·6	8·7	9·1
8	8½	52	7·5	8·5	9·9
9	8½	44	8·6	9·5	11·3
10	9½	52	9·4	11·1	12·1

The results of the survey were examined from three points of view; first the school was seen against the background of schools in general, then the organisation of the classes was considered in relation to the school as a whole, and finally each child's attainments were considered in relation to its mental age.

The data given above and the graphical representations of the results given below bring out the following points:—

(1) The intelligence of the respective age groups falls as one goes down the school, with the proviso that there is a slight tendency for there to be an improvement in the lowest group. The advance-

ment or retardation in months of mental age in relation to the norm is approximately

at 11 years	+ 15 months.
10 years	+ 11 months.
9 years	— 6 months.
8 years	— 5 months.

(2) All the attainment curves will be seen to follow the same general trend. The spelling can be considered to be very good in the lowest age group, and the reading exceptionally good right through the school. The arithmetic curves show that knowledge of methods reaches a very good general standard, whilst mechanical skill, *i.e.* rapid skill with the four rules (number only), would appear to be between three months and a year behind the mental age.

The norms given for the attainment tests represent average performances from which individual schools vary widely, the variation being due to a number of factors such as mental capacity, time spent on the subject, emphasis given to different aspects (*e.g.* mechanical skill or problem work in arithmetic) and teaching skill. If it were thought desirable to investigate the cause of the retardation in mechanical arithmetic the Schonell Diagnostic Test could be used with advantage. These tests are of great service in probing for the roots of retardation.

(3) The median and quartiles for each class were shown on the original graphs, and a comparison of these with those for the whole school pointed to a sound method of organisation. Standards I to IV contained the children of average and bright intelligence in successive age groups. Classes I and II catered for the dullest children, and contained smaller numbers. One point which appeared to be worthy of investigation was the position of the upper quartile for Class I. This showed the intelligence of the top quarter of this class to be nearly as good as that of the average child in the corresponding standards. Although the attainment figures did not entirely agree with this, there were a number of children who could have been transferred from one class to another.

(4) Finally each child's position (above the upper quartile, above the median, below the median, or below the lower quartile) was considered, intelligence being compared with attainments. The following figures give the data relating to those children whose attainments were not in keeping with their intelligence and who possibly required to have additional time devoted to some specific skill included in their school work.

	Chronological Age	Mental Age	Intelligence Quotient	Spelling	Reading	Arithmetic	
						Methods	Skill
Standard IV							
Case 1 ..	11– 1	13–1	118	—	—	—	10– 9
Case 2 ..	10–10	12–7	115	9–9	—	—	10– 2
Case 3 ..	10–10	12–7	115	—	—	—	10– 3
Case 4 ..	10– 8	12–6	117	9–2	—	11–4	9–10
Case 5 ..	10– 7	12–4	117	9–4	—	—	—
Standard III							
Case 1 ..	10–10	12–7	115	—	—	—	10– 9
Case 2 ..	10– 2	12–2	119	—	—	—	9–10
Case 3 ..	10– 1	12–2	120	—	10–1	—	9– 8
Case 4 ..	10– 1	13–3	131	—	—	—	9– 8
Case 5 ..	9–10	13–2	133	9–2	—	—	—
Case 6 ..	9–10	11–8	119	—	—	10–5	—
Case 7 ..	9– 8	11–8	120	—	10–4	—	—
Case 8 ..	9– 7	11–9	123	—	—	9–6	8– 7
Standard II							
Case 1 ..	9– 1	10– 8	116	—	—	9–0	7– 7
Case 2 ..	9– 0	9– 2	101	7–3	8–6	—	7– 4
Case 3 ..	8– 6	8– 9	102	8–3	—	—	—
Case 4 ..	8– 5	8–11	105	—	—	—	7– 3
Standard I ..							
Case 1 ..	8– 0	8– 8	107	7–4	—	—	—
Case 2 ..	7– 9	8– 2	104	—	—	—	7– 1
Case 3 ..	7– 9	8–11	115	—	—	—	7– 1
Case 4 ..	7– 6	7– 8	102	—	—	—	6– 6
Case 5 ..	7– 5	8– 0	108	—	—	7–7	6– 9
Class I							
Case 1 ..	8– 0	8– 0	93	7–6	—	—	6– 9
Case 2 ..	7– 7	7– 7	100	6–5	—	—	—

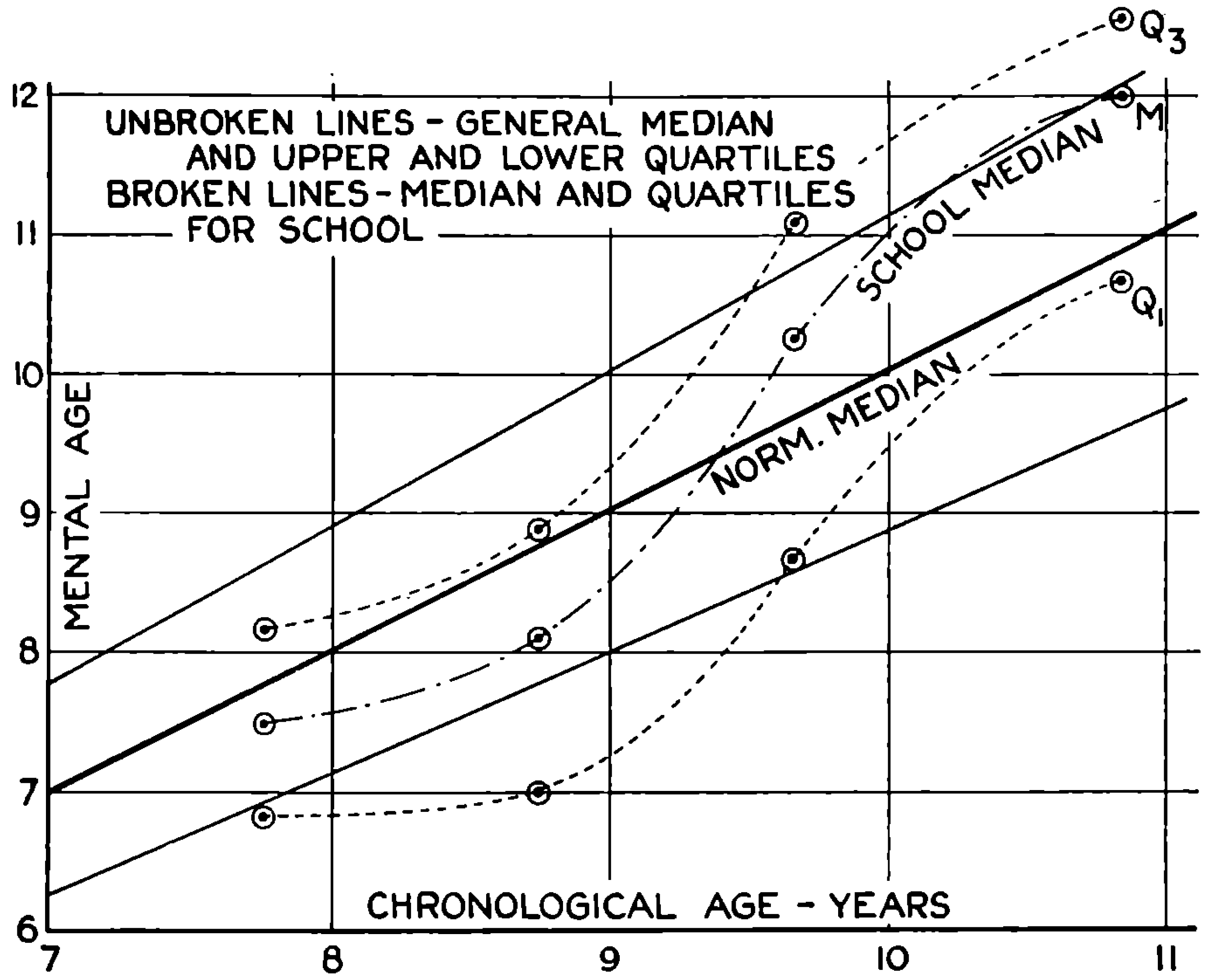
The organiser who is concerned with the efficiency of his or her school will realise at once the importance of such a survey and the great value it can be in detecting weaknesses and suggesting improvements in school organisation. It gives a general picture of the intellectual ability and of the achievements in basic skills of the children. It allows the weaknesses of individual children to be corrected, and for children to be placed in classes suitable to their ability. It does not pretend to give a picture of the whole school but only of one aspect of it. Such surveys conducted at suitable intervals serve three important purposes.

(*a*) They suggest the need for changes in the classification of children and also in the organisation of the school.

(*b*) They indicate the existence of problems to the solution of which thought and experiment must be devoted.

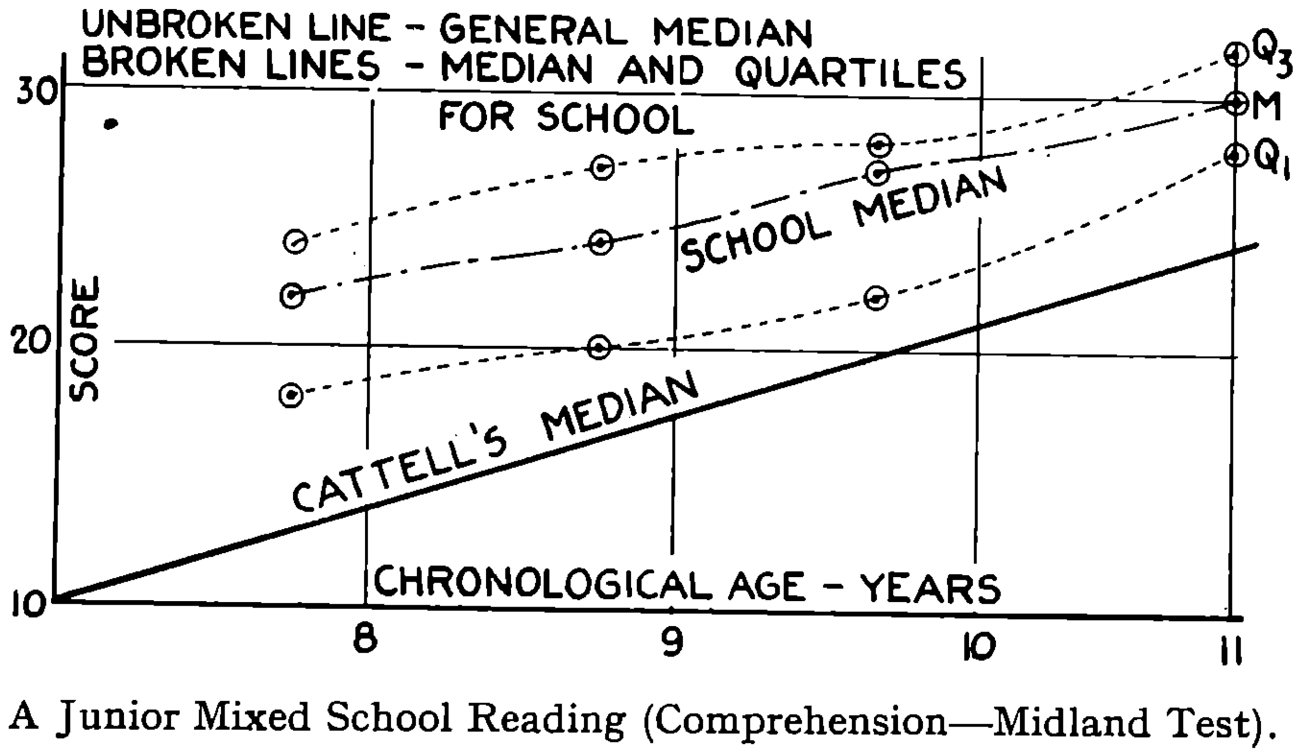
(*c*) They prevent the methods of the classification of children from becoming standardised and static.

DIAGRAM XXXV



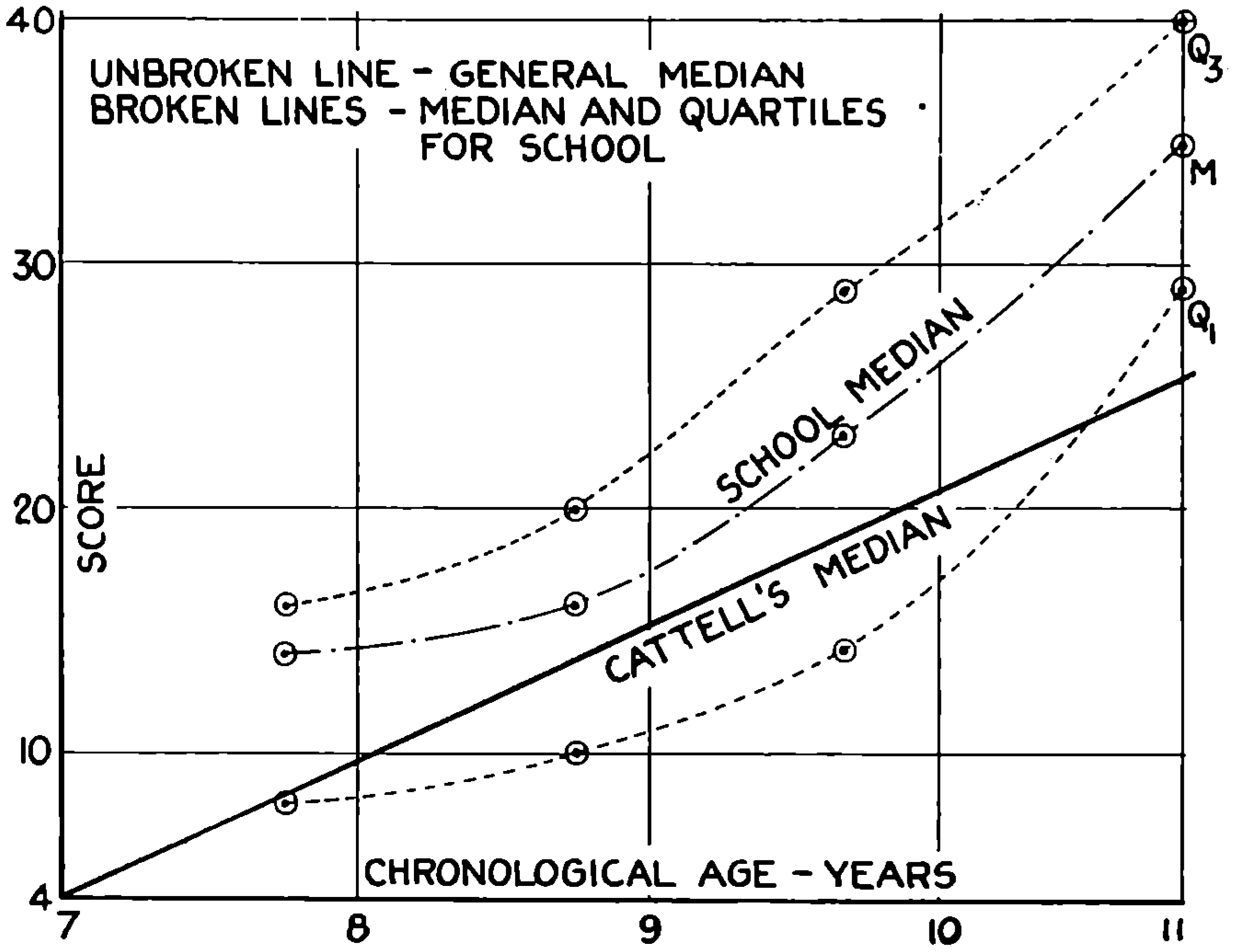
A Junior Mixed School. Distribution of Intelligence (Mental Ages).

DIAGRAM XXXVI



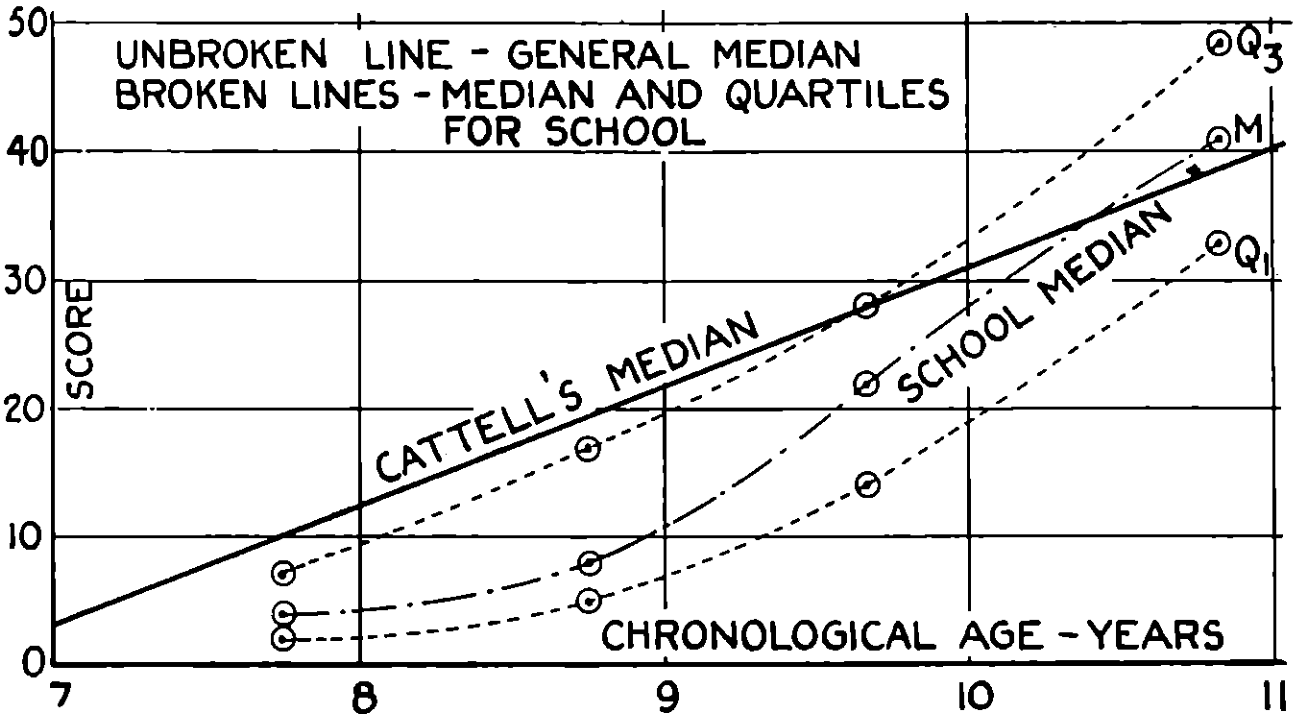
A Junior Mixed School Reading (Comprehension—Midland Test).

DIAGRAM XXXVII



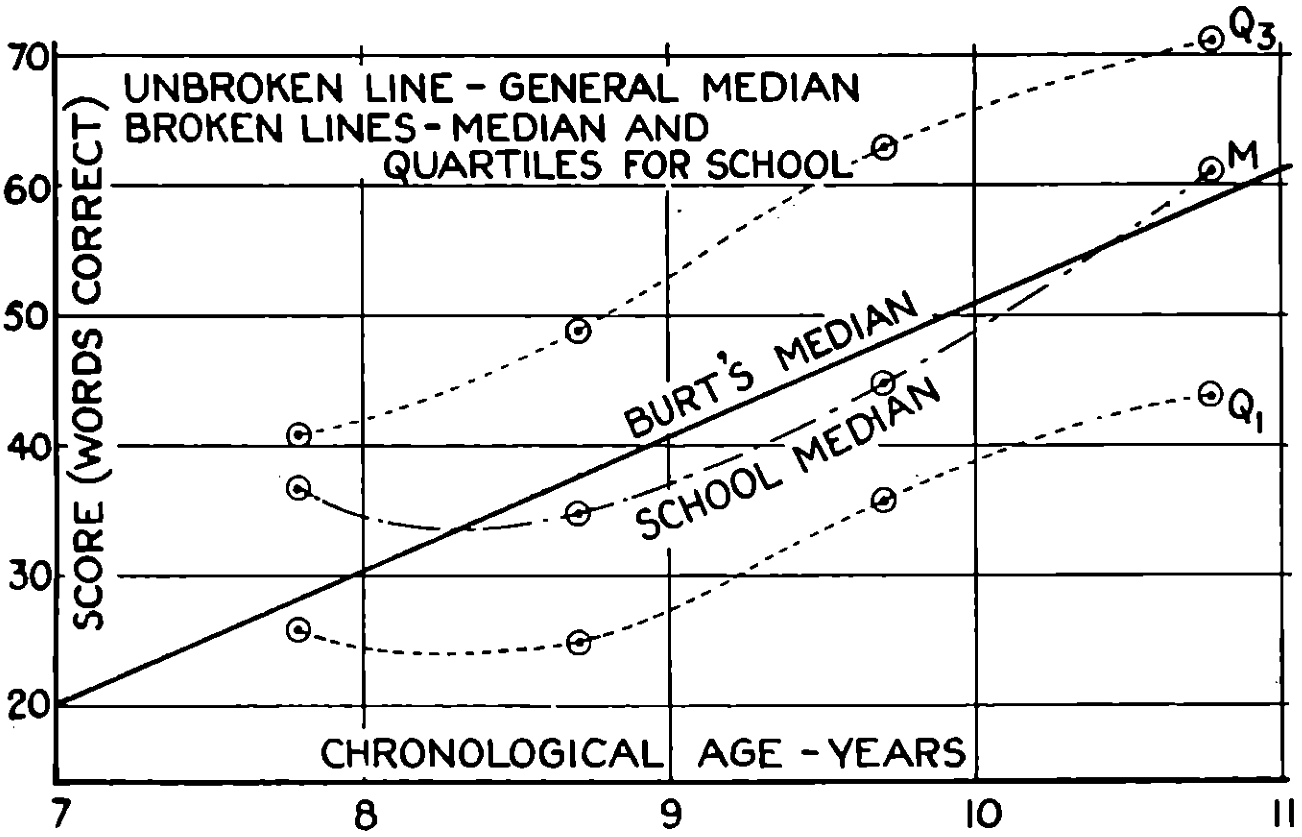
A Junior Mixed School. Arithmetic (Knowledge of Methods—Midland Test).

DIAGRAM XXXVIII



A Junior Mixed School. Arithmetic (Mechanical Skill—Midland Test).

DIAGRAM XXXIX



A Junior Mixed School. Spelling (Burt's Graded Test).

B. Senior Girls' School (Nov. 1939)

Classes I, II, and III (all new entrants) were included in it, and the tests used were—

INTELLIGENCE.—The 1932 Scottish Mental Survey.

ATTAINMENTS.—*Reading* (Comprehension)—The Silent Reading (Ballard).

Arithmetic—Midland Knowledge of Methods, Midland Mechanical Skill.

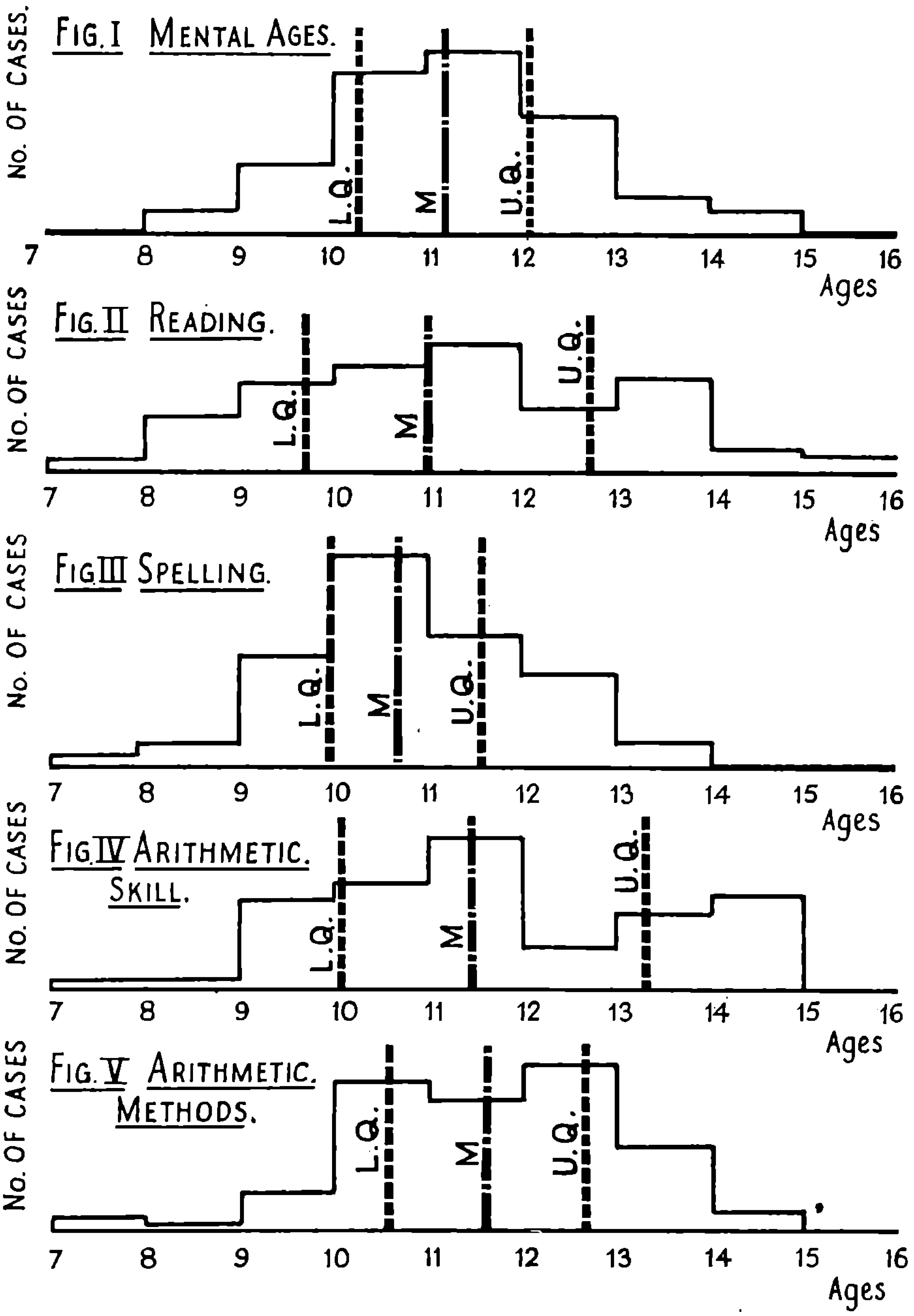
Spelling—Burt's Vocabulary test.

The distribution of scores from the whole group, in terms of mental ages are shown below (Diagram XL), and in graphical form in Diagram XLI, Figs. I-V.

DIAGRAM XL

Mental Age	No. of Children in Each Group				
	Reading	Arithmetic		Spelling	Intelligence
		Skill	Methods		
Below 8–0	1	2	2	2	0
8–0 to 8–11	10	2	1	4	2
9–0 to 9–11	15	15	6	19	12
10–0 to 10–11	19	17	25	35	26
11–0 to 11–11	22	26	22	22	31
12–0 to 12–11	11	7	28	16	20
13–0 to 13–11	16	13	14	4	7
14–0 to 14–11	4	16	3	—	4
Above 15–0	3				

DIAGRAM XLI



A Senior Girls' School. Distribution of Capacity and Attainments of lowest age group (approximately 11–12). (M = Median. L.Q. = Lower Quartile. U.Q. = Upper Quartile.)

These figures indicate a wide spread of ability. In order to bring into focus the central tendency of the figures and also the extent of the range of ability, the median scores and the upper and lower quartiles were obtained. These are summarised in the following table.

DIAGRAM XLII

	Lower Quartile	Median	Upper Quartile
Chronological Age ..	11 4	11 7	11 8
Mental Age ..	10 3	11 4	12 2
Reading	9 9	11 0	12 9
Arithmetic—			
(*a*) Mechanical ..	10 1	11 5	13 3
(*b*) Methods	10 6	11 7	12 7
Spelling ..	10 0	10 7	11 6

The same information can also be obtained from the graphical representation of the data collected during the survey.

The level of attainment appears to be quite satisfactory, the spelling median being the only one diverging more than six months from the median mental age.

The median I.Q. for the whole group was found to be 97·5, showing that the group is a " good " one from the point of view of intelligence, since about 10 per cent. of the total group had been removed from the school group by a selective examination.

The children were next considered by classes and the distribution of intelligence found to be as follows:—

DIAGRAM XLIII

Class	Lower Quartile	Median	Upper Quartile
Class 1 (C's)	84	90	98·5
Class 2 (B's)	85	92	97
Class 3 (A's)	101	105	113

This shows a very poor grading; there is no practical difference between the " B " and " C " groups. This appears to have been caused by the different standards of grading used in the contributory Junior Schools. It is suggested that this grading difficulty could be considerably obviated by the uniform adoption of the following system. Take the whole group to be promoted, and grade into 5 per cent. A's, 20 per cent. B's, 50 per cent. C's, 20 per cent. D's, and 5 per cent. E's. (This being the proportion found in a normal distribution.)

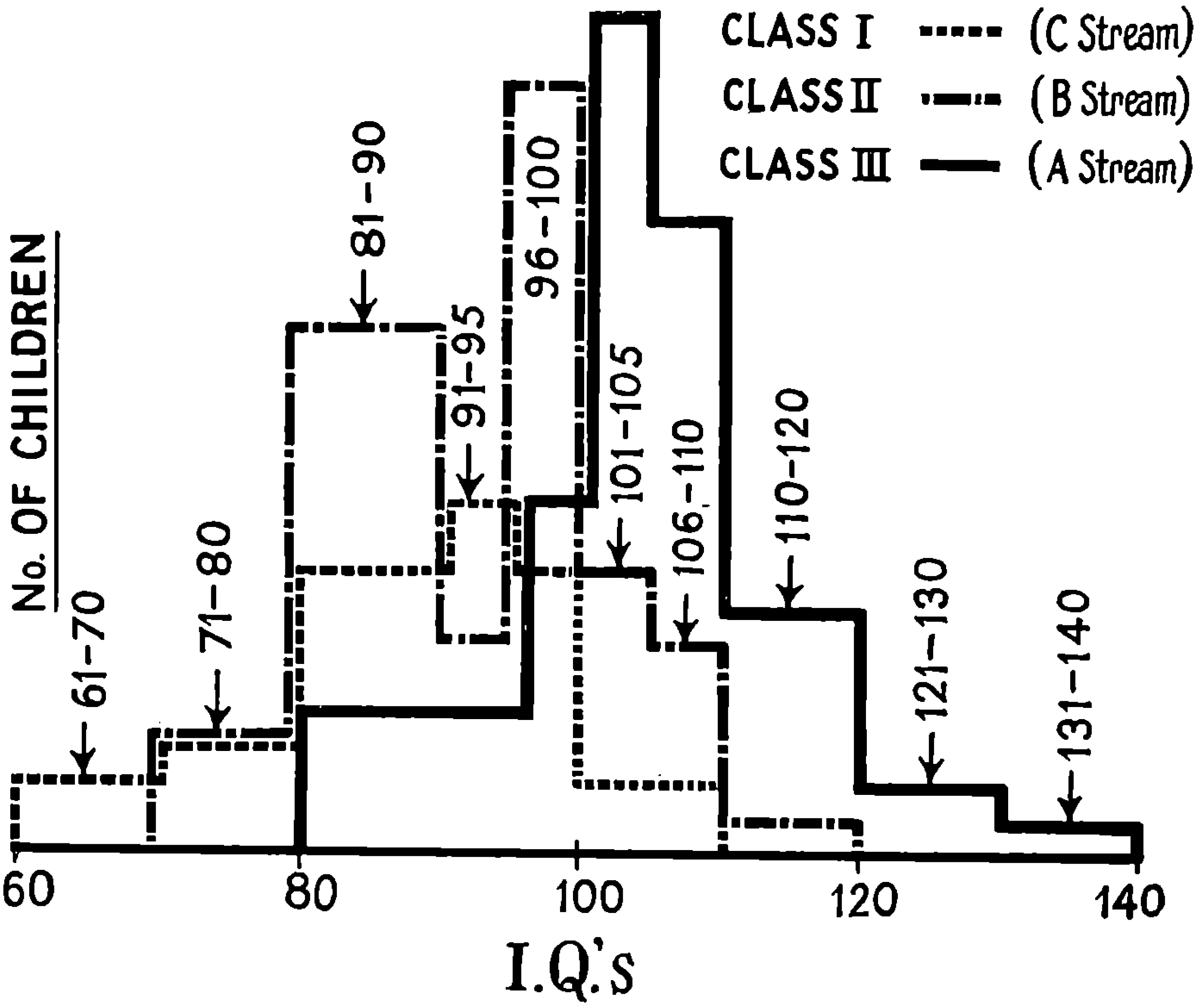
As there were in some cases large discrepancies between class and I.Q. on the one hand and mental and attainment ages on the other, about twenty girls were given a second intelligence test.

A very fair agreement was found between the two tests, but in drawing Diagram XLIV, the higher of the two results were taken in deference to the teachers' judgments. With these figures, Diagram XLIII becomes Diagram XLIV given under, and forms the basis of Diagram XLV.

DIAGRAM XLIV

Class	Lower Quartile	Median	Upper Quartile
Class 1 (C's)	83	89	96
Class 2 (B's)	85	95	99
Class 3 (A's)	101	105	113

DIAGRAM XLV



A Senior Girls' School. Distribution of Intelligence between Classes.

This distribution is obviously unsatisfactory, and an attempt was made to produce a better one by the following method. The 106 girls were listed in descending order of I.Q., the 40th and 80th on this list having I.Q.'s of 101 and 88 respectively. All the children

with I.Q.'s not more than five points on either side of these dividing lines were then considered. There were 34 girls with I.Q.'s between 96 and 105, and their attainments were spread as follows.

DIAGRAM XLVI

Subject	Lower Quartile	Median	Upper Quartile
Reading	10 10	11 3	12 7
Arithmetic: Skill ..	10 6	11 9	13 10
Arithmetic: Methods ..	11 2	11 9	12 7
Spelling ..	10 0	10 9	11 7

There were also 31 girls with I.Q.'s from 83 to 93 and attainments spread thus:

DIAGRAM XLVII

Subject	Lower Quartile	Median	Upper Quartile
Reading	9 0	9 9	10 6
Arithmetic: Skill ..	10 0	10 5	11 6
Arithmetic: Methods ..	10 2	10 6	11 3
Spelling	9 5	10 1	10 8

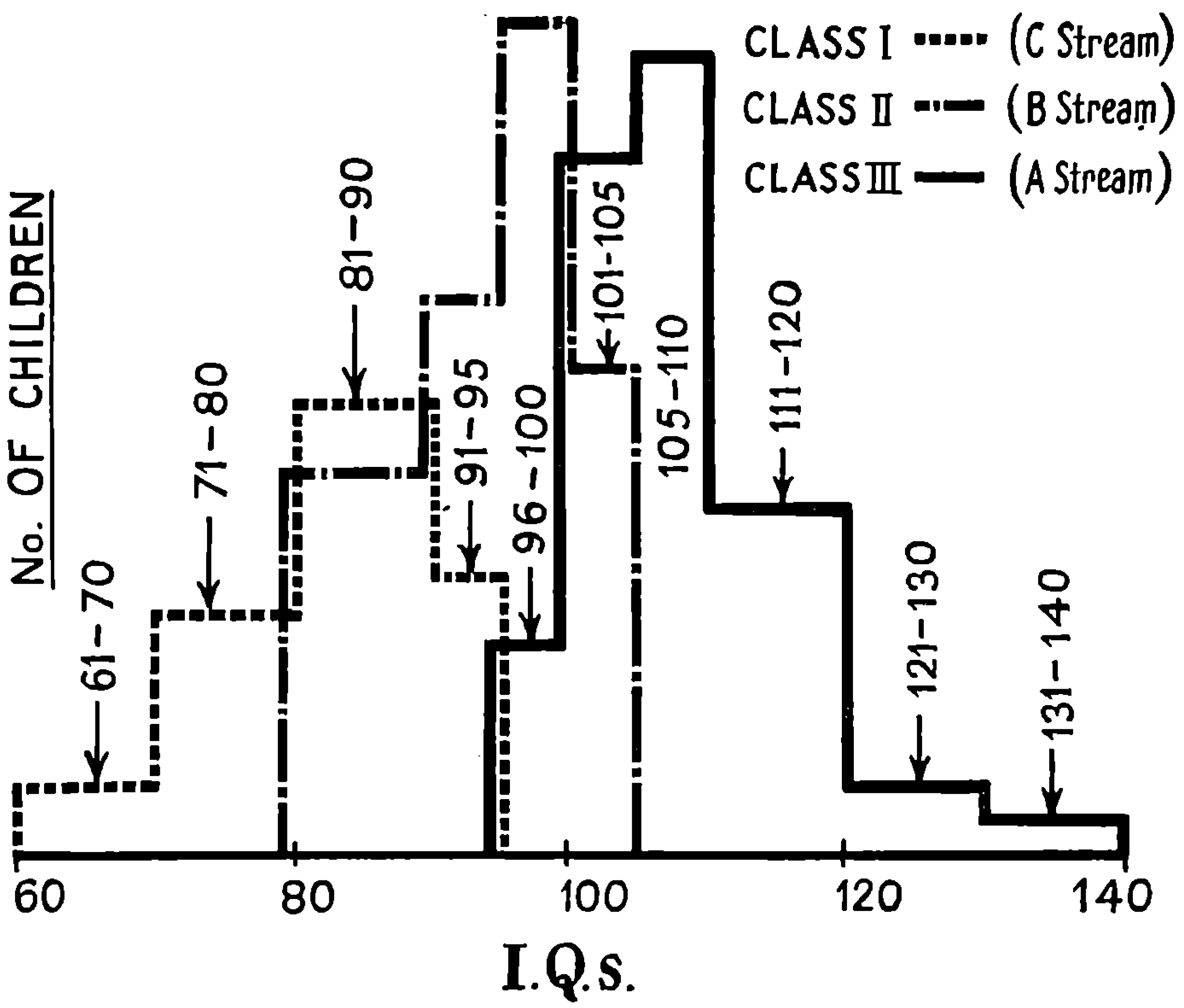
With this information it was in most cases easy to decide into which class each child should go. This survey ends with a list of suggested changes, and when these are made the new distribution of norms and quartiles is as follows:—

DIAGRAM XLVIII

Class	Lower Quartile	Median	Upper Quartile
Class 1 (C's) ..	79·5	83	87·5
Class 2 (B's) ..	90	96	99
Class 3 (A's) ..	103	108	114

This is illustrated graphically in Diagram XLIX. The new distribution is obviously more suitable than was the old one, and this is well illustrated by the reduction in the semi-interquartile ranges, given in the following diagram.

DIAGRAM XLIX



A Senior Girls' School. Suggested Distribution of Intelligence.

DIAGRAM L

Class	Present Distribution	Suggested Distribution
Class 1 (C's)	13 points of I.Q.	8 points of I.Q.
Class 2 (B's)	14 ,, ,, ,,	9 ,, ,, ,,
Class 3 (C's)	12 ,, ,, ,,	11 ,, ,, ,,

The original survey concludes with lists of girls recommended for inter-class transfer. There are *ten* girls recommended for such transfer from Class 1 to Class 2; *seven* for transfer from Class 2 to Class 3 and *seven* from the same Class to Class 1. From Class 3 *one* was recommended for transfer to Class 1 and *four* for transfer to Class 2. The graphs indicate how greatly these transfers improved the organisation of the school.

This is an interesting survey which achieved practical results. The data is expressed graphically by means of histograms instead of by curves as was the method adopted in the first survey. It indicates the need for an accurate method of classifying entrants to a school, particularly when such entrants come from a number of contributory schools.

C. A Senior Mixed School

This survey was carried out in November 1938. The Head Teacher had formed an opinion that there was a very wide range of ability in the lower " A " forms of the school, and was desirous of securing a more precise measure of both the intelligence and the attainments of his scholars. The survey was extended to include the lower " B " classes of the school, and subsequently the whole school in view of the facts recorded below. The tests employed by the Psychologist were:—

(*a*) INTELLIGENCE—National Institute of Industrial Psychology Group Test 34.

(*b*) ATTAINMENTS—*Spelling:* Burt's Graded Test.

Reading: Comprehension and Vocabulary.

Arithmetic: Mechanical Skill, Knowledge of Methods.

These tests are all Cattell's Midland Tests.

The intelligence test revealed such a wide range of ability (a range extending from mental ages of approximately 8 to 16 years), that it was thought advisable to give the same battery of tests to the corresponding " B " form (which contained about 50 per cent. of children in their second year in the school). The data obtained indicated a considerable overlap in the scores of the two groups.

It then seemed possible to make both forms considerably more homogeneous, by changing the best children in the " B " form for the worst in the " A " form, having regard both to intelligence and attainments. This project was severely limited, however, by the fact that the school is a mixed one, and only children of the same sex could be interchanged owing to difficulties in the organisation of the practical work. In view of this factor it seemed possible to interchange only three children from each class. But even this considerably improved the distribution.

The N.I.I.P. Group Test 34 gives norms in terms of Percentiles for elementary school children. When the tests were thus scored, each child being compared with children of its own age, an unusual distribution was again obtained. Even when both forms are put together (and the " B " form contains a number of dull children not promoted from the previous year), the distribution is still far from normal. These facts prompted a survey of the whole school. This survey brought out much valuable information and unearthed a number of children needing individual remedial teaching. In smaller dual schools organisation is always difficult, and there is always a tendency to assess children by attainment rather than by

chronological or mental age or, more correctly, by a comparison of attainments with mental age.

Reporting on this school the Psychologist says, "This is a difficult school to organise on orthodox lines. There are at present five classes, three so-called 'A' classes, and two 'B' classes, which means that there is no real stream of promotion for the 'B' children, and any 'A' child who is admitted to the school at the lowest age level possible will have to spend two years in the 'top class.'

"The following is an outline of a possible solution. At the present time there are somewhat less than 210 children in the school, and there are approximately sixty admissions per year. If a system of 9-monthly promotions could be adopted there would be about 45 admitted per 'year.' Five such 'yearly' admissions (*i.e.* over 45 months) would give a school roll of $5 \times 45 = 225$, a slightly low estimate of the number in school at the beginning of the school year under the present conditions. Of these children 145 could be placed in the main stream of the school (consisting of four successive classes) which would provide a continuous, properly planned course for them. The remaining eighty could then be dealt with as follows. Provide a leavers' class of about twenty children. This would tend to disappear during the school year. The remaining sixty could then be catered for by two all-age 'special methods' classes, an upper and a lower, organised according to the ability and attainment of the children composing them. The upper class might also deal with those children whose intelligence would warrant their presence in the main stream but whose attainment shows a need for individual tuition; such children might spend in this class a period of such length as would enable them to return to the main stream at a later date."

These three examples indicate the methods and results of a school mental survey. There is scope for the extension of this work, and the wise organiser will make increasing use of it. Like all other aids to the organisation of a school, it must never be allowed to become an aim in itself, but always be used as a means whereby the education of the pupils is furthered.

CHAPTER XV

THE SCHOOL AND THE OUTSIDE WORLD

SYMBOLIC of the change of relationship between the school and the outside world is the change in the method of enclosing the school and its playground. In former days it was common for the school and its surroundings to be separated from the outside world by a wall which was usually six feet or more in height. This wall was pierced at intervals with spaces filled by massive iron or wooden gates. The purpose of this encircling wall was two-fold. It was intended to keep parents and other members of the public out and to keep the children in. It was for these reasons that the gates were commonly kept locked—with the exception of the short period during which the children and staff were entering or leaving the school. While in some schools this old type of enclosing wall still remains, it is more common nowadays to find a lower wall, and gates less forbidding and more often open. This change in the type of wall represents a change in the relationship of the school and the outside world. Nowadays there is much more free movement between the school and the rest of the community than there was a decade or so ago.

Throughout this volume the point of view which has been stressed is that the school is an institution set up by a society to serve the ends of that society. It is obvious that, even when the high wall and the locked gate forbade physical access to the school, the values and ideals and the whole of that which is included in the conception of " the mental climate of the age " would enter into the school and affect its whole character. It is true that within the school there may be factors which take their origin in sources not generally stressed in the community. The inspiration of a great Head Teacher, the atmosphere engendered by a staff working co-operatively in the achievement of a single aim, and the joyousness of the children may all make the school a thing apart in some degree from the outside world. But the general statement remains true. Mental and emotional factors found in the general community will appear with certainty in the smaller school community. When in the outer world there appears fear, anxiety, a lust for power, the unreasoning use of force, intolerance or injustice, these elements will equally be found within the school. It may be possible to take steps to lessen their incidence and to soften their impact on the

child, but a community hag-ridden by fear, can never sustain schools in which the only motive is love and confidence.

As has been pointed out, schools set up in a community based on competition must always show in the educational system of which they are part, the working of the competitive spirit. On the other hand, where in a community there is found a sense of the value of the lovely things in life—a sense of tolerance and equality, an appreciation of beauty, and a respect for individuality, then the schools of such a community will be motivated by the same values. Again, it is possible for factors within the school to add to or detract from the values of the community. But no school can live apart from the community in which it is established. This indicates the essential connection between schools and the outside world. The mental climate which permeates the school as part of the whole community has to be taken into account by every organiser. No school can escape from it. It is the soil out of which must grow any new values which are to replace the older ones.

In addition to this general interaction between the school and the community, there are certain aspects of communal life which either wittingly or unwittingly exert a special influence upon the activities of the school. Amongst these are the parents of the scholars taken as a body, the work to which the children of the school will ultimately go, and the influence due to long or short school journeys.

The need for securing and maintaining the interest of the parents of the scholars attending a school is obvious, and there are many ways in which this can be done. The Home and School Council have done excellent work in stimulating the formation of Parent-Teacher associations. In such an association parents and teachers are able to meet for social purposes, as discussion groups, or to hear addresses by experts on the various aspects of child development. In such groups the parent learns that good behaviour at home does not necessarily mean good behaviour at school, and the teacher gains another side light on the pupils. Where schools are organised in accordance with the recommendations of the Hadow Committee it has been found a good plan to have one general parent-teacher association covering the whole range of Infants, Juniors, and Seniors, together with a separate subsidiary association for each type of school. This ensures continuity of interest by the parent throughout the school career without detracting from his interest in the school attended by his particular child. From parent-teacher associations will often come both suggestions, help, and actual gifts which do much to make the school at one with its environment.

It is not only through the parent-teacher associations that the co-operation of parents can be secured. Such associations are one form of machinery set up to give expression to the desire for co-operation. If the home and the school endeavour to "keep themselves to themselves" neither will properly fulfil its function. In some cases the opposition or the shyness of parents has to be overcome, but not all the opposition to co-operation between the school and the home originates with the parents. There are some teachers who still ban parents from the school premises, and others who are willing to dictate but unwilling to discuss. Contact with parents may be gained through such functions as prize days, school concerts, commemoration days, May days, and open days. The value of these depends entirely upon the spirit in which they are organised. Prize days are more characteristic of Secondary Schools than of Elementary ones, and a wealth of educational history lies behind this distinction. When a prize day causes envy or depression it is bad for the school. Where one type of ability is rewarded in excess of another type, false values are apt to result. A school prize day needs the most careful planning and the most tactful handling unless it is to do more harm than good.

School concerts vary in type. They may be used for the purpose of exhibiting to a credulous public the talent of a few specially endowed children. For their performance these children are specially trained with the result that the performance is usually flawless. Only one criticism can be levelled at it, but that one is important. Such a display is not a *school* concert, but a performance given by talented juveniles. A *school* concert should give the parents and interested friends an opportunity of seeing through music, speech, drama, dancing, and other rhythmic exercises the work in these spheres of activity carried out by the school as a whole. The more children who can participate the better will the performance represent the school. The ideal state of affairs occurs when it is possible to say that every child attending the school will appear on the platform during the course of the performance. This is not an impossible ideal, but one which has been carried out even in an Infants' School. In Senior Schools the work of preparing stage properties, costumes, etc., should be another channel through which the school as a whole participates in the performance.

It is becoming more frequent to give to Elementary Schools some commemorative name rather than a geographical one. When this is done, a school commemoration day becomes a possibility. Such a function should be an occasion on which the aims of a school and the values for which it stands can be made clear to children,

parents, and other visitors. From one point of view such commemoration should enshrine in its ceremonial the growing tradition of the school. From another point of view it is a religious service of rededication. It should both commemorate the past and orientate the purpose of the school to the future.

The celebration of the coming of Spring with a May Day festival serves a dual purpose. Rightly organised it gives to the children an opportunity of expressing in appropriate song and dance their natural joy in the return of the sunny days and appearance of the spring flowers. The crowning of the May Queen adds to this indirect instruction in social behaviour, clear speech, and graceful movements, and in communal activity. It should never be allowed to be so organised that the organisation kills the life of it.

Open Days, again, are of many types. But however they may vary in detail they should have the same common purpose. Their function is to let parents and other interested friends have an opportunity of seeing the school in action and to provide the occasion when teachers and parents can consult about individual children. This means that they should be informal, sociable gatherings, and not what one Headmistress described as "eyebrow" functions. The usual drawback is that the mothers will come but the fathers are generally at work. To give the latter a chance to see the schools working some have open sessions in the evening. This is not, of course, possible in the case of Infants' Schools, and only in the case of Junior Schools when the session is an early evening one. But with senior children an occasional evening session which can be attended by fathers is a scheme worth trying.

There has been a great growth in the school journey and school camping movement during recent years. Broadly speaking, these activities fall into three groups:—

(*a*) *The Camp*, of which the main attraction is the fact that being under canvas partakes of the thrill which comes to the pioneer and adventurer.

(*b*) *The Hutment Camp*, in which the sleeping and catering arrangements are more like the home conditions, and

(*c*) *The Hostel* (or private accommodation) party, in which sleeping and catering arrangements are normal.

From the administrative point of view there are two kinds of camps or school journeys—that carried out as part of the school curriculum during school hours, and the holiday camp or journey. For the first certain regulations must be conformed to. Regular

study—it may be Biology, Geography, local history, and so on—must be carried out. The children taken must be as far as possible a class unit, and there must be no charge made. The first of these conditions is always satisfied in any good school journey. The whole object of these journeys is to give the children experience of conditions and of an environment different from that to which they are usually accustomed. The wise teacher will be eager to systematise the information collected and so to make it available to the children for comparison. Further school journeys and camps provide a great opportunity for social education. The experience of living with others, of engaging in communal tasks, and of good habits of eating and sleeping can all be implicitly given on school journeys. The second condition that the unit taken must be a class unit has not so much to recommend it. One teacher is required for every twenty children, and this is a minimum requirement. This means that one class on a school journey presents difficulties in the school itself, unless temporary help is provided. But the real objection goes deeper than this. It is found that twenty to thirty is the ideal size for a school camp or a school journey, and diversity in the age range and abilities of this group (within reasonable limits) adds to its naturalness and spontaneity. The third condition that no charge must be made is based upon the fact that the provision of elementary education is free, and that therefore no charge can be made for activities carried out during school hours. Where the Authority pays the whole of the cost of the journey no difficulty arises. Where the Authority only makes a grant towards the cost problems do arise. The use of school funds indicates one means of solving such problems. They do not arise, of course, in connection with the organisation of holiday camps and journeys to which children of any suitable age can be taken and towards the cost of which charges may be made to the parents.

Recently an increasing use has been made of Youth Hostels in connection with school journeys. These hostels have many advantages. They are usually situated in pleasant surroundings where historic or geographic interests are strong. They have good accommodation, both sleeping and feeding, and good recreation facilities. They are usually full with their own members on both Saturday night and Sunday night, but for the rest of the week there is ample accommodation. The Youth Hostel Association is co-operative and helpful, and most of the wardens are splendid. Junior School children (particularly those of ten and over) can be taken to a Youth Hostel for a school journey with perfect safety

and confidence, and they will be found to profit by it. A well organised hut in a quiet locality is ideal for speech defectives and emotionally disturbed children.

The journeys may last for a day, for a week, or for a longer period. The day journey is usually made with some specific object, such as a visit to some works, or a place of historic interest, and so on. It represents the school going out into the wider world, and its value depends largely on the skill and foresight of the guide and leader.

If it is possible for the teacher to make a personal visit earlier this should be done. It is rarely possible that a child can grasp the whole of the new impressions at once. If his attention can be directed to the significant things, so much the better. But this must not mean that the spontaneous joy of the experience is destroyed by its over-organisation. For the week's journey preparation is also necessary. If the area to be visited can be explored by the teacher beforehand, so much the better. But the rigid organisation of every moment of the children's time is to be deprecated. So, too, is the overcrowding of the programme. It is better to do less and to do it at the child's pace than to try to emulate some American and English tourists.

All these types of journeys mean the projection of the school into the outer world. They are no longer just the "day at the seaside" or a "day in the country." The children do not go in order dutifully to admire the same views that countless generations have been told to admire. It is true that a school journey may offer many chances for the exercise by the child of its appreciation of beauty, but this grows by careful fostering rather than springs out at command. On school journeys the child sees something of the living conditions of other people. He may go to the town and see the works and the industrial life. He may go to the country and see the farms and the rural life. He may be in an environment more beautiful than his usual one, or more ugly. Whichever it is he is gaining data for comparison and so for action. He is learning that the school is not the only place in which education is carried out.

The type of work to which the scholars of any school will go is bound to have some effect upon the school, and this effect grows, the nearer the age of the children to the school leaving age. So, too, does the certainty or otherwise of the work affect the schools. It has been noticed that in one town in which there was ample employment for girls, but less certain employment for boys, that the former appeared more settled and poised towards the end of their school

careers than did the latter. The boys seemed almost to realise the coming possibility of periods of unemployment.

The type of work open to the pupils is bound to affect the later terms of the Modern Schools. This is not meant to indicate that there will be any vocational bias, but the wise organiser will make use of the fact that the interest of the boys and girls has begun to turn unconsciously to the future. So, too, should the future employment be considered with a view to strengthening those recreational interests which will be of the greatest value to the young worker in post-school years. Here, then, are two ways in which the work to which children go will affect the work of the school. It will inevitably raise questions concerning the curriculum and its connection with the work and recreation of the children. This connection was well exemplified in the Free Time-Table experiment to which reference was made in an earlier chapter.

The ultimate test of the school is the nature of those who leave it. If they take with them into their later life values and qualities which make that life richer and more satisfactory then it has well fulfilled its function. If, on the other hand, the young worker is entirely at the mercy of circumstances and his environment, then it has failed. Speaking during the debates upon the Education Act which was to have raised the school leaving age to 15 plus, with exemptions, an educationist is reported to have said that young adolescents who had been for a month or so in industry were not wanted back in the schools, for they would bring with them so many features undesirable in schools. This seems to imply such a divorce between the schools and industry that calls for most serious consideration. If the school fulfils its function it must look forward to the young person's employment; if the employment is to be suitable for the young person it must be carried out under conditions which make the transition from school not too hard a task. It must always be remembered that parents, teachers, and employers alike are concerned in the task of developing the future citizens of the State. Co-operation there must be, although the difficulty is that so many people believe that co-operation is acquiescence in their views. The school must play its part in developing a better understanding between itself and the outer world, and one way in which this end can be achieved is by making as many contacts as possible with it, through school journeys and visits, and contacts with parents and old scholars and the work to which the young people go.

CHAPTER XVI

THE SCHOOLS AND OTHER SERVICES

AT the beginning of the last chapter it was pointed out that in recent years the school had become less isolated from, and in closer contact with, the world outside it. This process whereby the school is becoming increasingly recognised as only one of the many influences concerned in the production of the good life in the good state has been paralleled by the increasing unification of the services set up to cater for the welfare of children and adolescents. This latter process has not yet proceeded as far as one would wish. The child is too often regarded from a purely physiological point of view when he attends at the school medical clinic, from the psychological point of view at the child guidance clinic, from a purely educational point of view whilst in the school, and as a young delinquent when he appears before the magistrates of a Juvenile Court. Yet it is frequently the same child who is dealt with by all of the services. Physical ill health means absence from school with resulting educational backwardness and retardation. This backwardness and physical ill health together or singly may involve the child in emotional disturbances. Such disturbances, whether caused as indicated or arising from other causes, react in their turn upon his school work and his physical health. Such emotional disturbances, educational retardation, and physical ill health combine to produce the young delinquent. To these factors detrimental to the development of the *whole* child should be added that of an environment which fails to furnish necessary background for social education.

The old atomistic idea of children is passing. No longer are they viewed as composed of three aspects, body, mind, and spirit, each of which can be discussed and dealt with as a separate entity apart from the other two. It is becoming increasingly recognised that physical, mental, moral, emotional, and social factors are inextricably interwoven in the mosaic which is the life of a child. Therefore the educational service of a community tends to become in increasingly close contact with aspects of the development other than the strictly educational one. No organiser of a school can afford to remain in ignorance of the purpose and function of the school medical service any more than the school medical officer can afford to be ignorant of the aims and methods of the schools from

which the children come to his clinic. So, too, the organiser should be conversant with the aims and procedure of the modern child guidance clinic, and of the opportunities which they provide for the treatment of emotionally disturbed children. He should be familiar, too, with the various ways in which recent legislation makes it possible to deal with young delinquents. He should know what are the functions of the probation officer, and in what type of cases his services can be utilised. He should know what is meant by the boarding out of children, and the place of the Home Office school in the educational system of the country. Above all he should know the opportunities of social education open to the children attending his school, and where satisfactory opportunities are not provided in the home, should consider how far the need can be met by clubs, play centres, and other facilities for children and adolescents. This all, of course, presupposes that the magistrates of the Juvenile Court, the probation officer and parents, club organisers, the psychologist, the psychiatrist, and the school medical officer are prepared to co-operate with one another and with those concerned primarily with the formal education of the child.

Some brief notes on the various services are appended.

The school medical service makes, in general, three inspections of the child during its school career. One of these is made as soon after the child enters school as is possible, while the second is about the middle of the child's school career, and the third shortly before leaving. At these periodical surveys children who require remedial or preventative treatment, are noted and dealt with as necessary. It must be borne in mind that the primary objective of the school medical service is the prevention of disease rather than its treatment when it has developed. This is one of the strongest arguments in favour of the Nursery School or Class. It brings the child under the care of the school medical service at an earlier age than would otherwise be the case. With the development of the maternity and child welfare work which is now being carried out under the Ministry of Health, and an extension of the Nursery School to link up with this work, it should be possible to cover the whole of the early years of childhood and so prevent much subsequent suffering.

In connection with the school medical services other work is carried out in addition to that of inspection. The minor ailments clinic has referred to it cases of slight accidents and illnesses for diagnosis and treatment. The school nurses visit the schools and homes to follow up cases dealt with at the clinic or in hospital, and to make inspections in the school for general cleanliness. The school dental service provides a periodical examination of

teeth of all school children, and conservative and preventative work in connection with them. There is usually an orthopaedic scheme, and a scheme whereby an oculist deals with cases of eye trouble. Tonsils and adenoids are dealt with, and an immunisation scheme against diphtheria is usually provided. All these services together with the provision of special schools such as open air schools, schools for partially sighted or blind children, schools for the deaf and dumb, etc., come under the head of Special Services, and on the expenditure involved upon them the Board of Education pays grant at the rate of 50 per cent.

Some services deal with cases which cannot be classified as medical, educational, or psychological, but which illustrate perfectly the need for a properly co-ordinated and unified Children's Service. The treatment of speech defects is an example. It is recognised that a speech defect is one of the most disastrous from which a child may suffer. It will affect both his personal happiness and also his success in life. Without the full power of speech the most fundamental means of self-expression is debarred to the child, and without the power of correct speech he is handicapped in his efforts to progress. The increased time now devoted to speech training is a recognition of these facts. It is unfortunate that for so many children it is the language taught in school that is the "dialect" and the dialect which is the common coin of social intercourse. Speech Training is doing much to strengthen the hold of good clear speech, and the work of the B.B.C. tends to achieve the same end. If bad speech can be a serious handicap to the normal child, defective speech is often a well-nigh insurmountable obstacle both to happiness and success. Further, there is no defect that is so clearly apparent and so distressing to the child and to those who have to deal with him. The defect may be physiological in origin, or psychological. The one essential step in remedial work is the restoration of confidence and hope to the sufferer who is prone to feel that he or she is doomed to lifelong inferiority when actually this is not the case.

Some Authorities now appoint a Speech Therapist, whose function it is to assist these cases. From the nature of the defect, the work of the Speech Therapist must be very largely one of the treatment of individual cases. The School Medical Officer refers cases to the Speech Therapist and deals in the first place with any physical state which requires attention. The Speech Therapist deals with those which are psychological in origin and in all cases where re-education is necessary. The Speech Therapist needs much time for visiting the homes and parents of the cases with which he has

to deal. It is essential that the parents should understand his aims and should co-operate with him in ensuring regularity of exercises and relaxation. So, too, the sympathy and understanding of the teachers is a necessity if permanent success is to be achieved. One Speech Therapist at least has carried out a most successful experiment by taking some twenty of his cases, of all ages from 5 to 15, to a school camp in rural surroundings. A camp sing-song and concert in this camp furnished conclusive proof of the value of the work done. Again, it should be stressed that early diagnosis and treatment are most valuable. The longer the defect has operated the longer will the re-educative process have to be. The services of a properly qualified Speech Therapist are essential in any modern educational system.

The exact place of the Psychologist in the educational system is one about which there is as yet not complete agreement. There is, however, an increasing recognition of the value of the work that the Psychologist can do, and an increasing number of Authorities are appointing specialists to carry out some form or other of psychological work. The need of such work is apparent from two points of view. From the strictly educational aspect there is the need to make instruction fit the capacity of the child to absorb it. The old conception of a general standard to which every child could attain in a uniform time died hard. The work of Burt and others showed that children varied in degree of intelligence and in educability. So came an increasing use of mental tests, and it was perhaps unfortunate that in the early days of their use there was a tendency to believe that they could be employed by those inexperienced in the technique of their application and lacking in knowledge of their theoretical basis and of the scientific interpretation of the results attained. Some disillusionment followed, but this period is now being succeeded by one in which the value of the right use of these tests is admitted. The chapter on "Tests and Organisation" gives examples of their proper use. The Psychologist has won his place in the educational system then, from the educational point of view. His work furthers and facilitates the gaining of the educational objective.

But, at roughly the same time that the Psychologist was coming into the educational system on account of the direct demands of the educators, he was also coming into the whole service of childhood through the needs of the medical services. There was a growing recognition of the fact that many childish ailments and troubles have a psychological basis. The School Medical Officer found that attention to the physical side alone did not always have the

expected and hoped for result. Many School Medical Officers applied a psychology developed by experience to such cases and were often most successful. But the demand for specialised treatment led to the development of the psychologist who entered the service via the medical route.

It was only to be expected that the educational psychologist should view the problem which confronted him as primarily an educational one, while the medical psychologist should tend to view it as a medical one. In some cases this has led to discussions as to the place of the psychologist in the service of childhood, but there is now an increasing tendency to take all the facts elicited in any case as equally important and significant, and to use them as giving a complete picture of the child in question.

The Child Guidance Clinic or Centre is a further development of the psychological service in connection with education. In some cases the name varies—it may be called a Child Guidance Centre, a Child Guidance Clinic, or simply the Children's Centre. Usually such centres or clinics start with some opposition due to prejudice. The parents think that any child who attends them is mentally defective. The teachers may feel that they " could do as much for the child " as the clinic or centre could. The only way to overcome these prejudices is by tact and the spread of information. People can often be persuaded to be co-operative when coercion is ineffective. A good social worker is an asset to any centre. And every step must be taken to see that the object and purpose of the centre is known to the schools. The setting up of the centre has tended to differentiate between the functions of the educational psychologist and the psychologist who diagnoses and treats cases of psychological mal-adjustment. The former conducts mental tests, assesses the intelligence of children referred to him, conducts school surveys, takes classes for teachers in testing, and other work of a similar nature. The latter searches for the causes of the psychological mal-adjustment in the cases brought to his notice. More commonly this function is indicated by the title of Psychiatrist, which is the one now commonly employed. He uses the findings of the educational psychologist as he uses the reports of the teachers and the social worker, and his own interviews with the child. All of them are lights on the individual child with whom he is confronted.

Diagnosis is useless without curative treatment, and it is in this sphere that much progress has been made in recent years. The work of Dr. M. Lowenfeld in the development of the technique of Play Therapy is well known. A trained and skilled Play Therapist is an essential member of any Children's Centre.

So there develops the conception of a team of workers who endeavour to see the child as a whole and to co-ordinate their efforts towards his treatment as a person and not as a case. At the Children's Centre there will be the School Medical Officer and the Psychiatrist, the Psychologist and the Play Therapist, and also the social worker. Outside the Centre will be the parents and the teachers. Liason between the parents and the Centre is maintained through the social worker; the Psychologist and the School Medical Services ensure contact with the schools. School reports, the results of psychological tests, parents' reports, the reports of the Medical Officer, and the results of the investigations of the Psychiatrist and Play Therapist all furnish the data upon which diagnosis is made and remedial steps suggested. To this chapter is attached as an appendix (page 271) a report issued by a Children's Centre which illustrates very clearly and strikingly the results which can be achieved.

Provision for feeding undernourished children, and also children who have to travel considerable distances to school has increased during recent years. Any Education Authority has powers to provide both milk and solid meals. A scale has to be adopted and approved by the Board of Education in accordance with which meals are provided free, at part cost or at whole cost, dependent upon the means of the parents. Meals provided for necessitous children, *i.e.* for those suffering from mal-nourishment, are granted subject to the approval of the School Medical Officer. The criterion was that the children concerned had to be suffering from mal-nourishment before they could be fed. The stringent application of this condition has been lifted during war time, and it is to be hoped that it will not be re-imposed. It would appear to be a wiser course to take steps to prevent the state developing rather than to attempt to cure it when it has developed.

Milk for school children is also provided under a Government scheme at a cost of one penny per third of a pint bottle, and most Authorities have put the scheme into operation. Again, an income scale determines whether the milk is granted free, at part cost, or at whole cost. This provision for the feeding of children is the expression of the growing conviction that it is impossible to expect children to benefit fully from educational provision if they are inadequately nourished.

The growth of centrally situated Modern Schools has made necessary the provision of meals for children who travel long distances to reach school. Usually the provision takes one of two forms; sometimes the two forms exist side by side. In the one

case complete meals are provided for the children at the lowest reasonable cost; in the other hot drinks are provided for children who bring their own food with them. In either case great care should be taken to see that the arrangements for the meals are well organised and that they are well served and partaken of in an orderly manner. They should be used as an opportunity for social education and for furthering the purpose for which the school as a whole exists.

The Library Service is an extension of the educational service, and there should be close contact between the schools and the Public Libraries. Visits to the Libraries by school parties are one means of making the children familiar with the facilities which the libraries offer. In other cases the Education Service and the Library Service co-operate in the provision and servicing of a sub-library in the Senior Schools, the books being partly permanent stock and partly rotating stock. Advice and training in the use of books is one of the functions of the school, and the wise organiser will secure and maintain close contact with the local Library Service.

The ultimate objective must be to weld all the services which are connected with the welfare of children into a unitary service, so co-ordinated and organised, that each branch co-operates with all the others in the furtherance of their common aim of providing sound environmental and developmental conditions for children and young people.

Appendix to Chapter XVI

REPORT ON CHILDREN'S CENTRE

In the growing child, three processes are going on side by side, namely physical development, intellectual development and emotional development; and to ensure that the child shall grow into a completely mature and efficient adult it is essential that all three processes should proceed along normal lines.

It is the function of the doctor to watch over physical development and deal with defects and deviations; it is the function of the school to stimulate and encourage intellectual development. Until recently, however, emotional development has been left very largely to look after itself. We are just beginning to realise what a serious mistake this is, since emotional disorders can just as surely interfere with a child's general well-being, check his educational progress and threaten his future as can the more generally recognised intellectual defects and physical disorders. It was for this reason that the Children's Centre was brought into being; that the emotional development of the children might receive the same careful attention as was already being accorded to their physical and intellectual development. The Children's Centre is by no means the first psychological clinic for children

to be established in this country, but it has one unique feature, and that is its association with the Open Air School. In this school the physical defective and the child with emotional difficulties sit side by side, whilst in the adjoining Clinic the school doctor, the psychiatrist, the educational psychologist and the play therapist are to be found all working together and in close collaboration with the Staff of the Open Air School. This happy arrangement makes it possible to do away with the usual distinction between the delinquent child, the nervous child, the retarded child, and the ill child, and to regard all such varied conditions as nervousness, chronic headache, stealing, rheumatic pains, temper tantrums, bed wetting, shyness, asthma, lassitude, school failure, etc., merely as symptoms that something is going wrong with *the child*, and to pursue investigations along three lines simultaneously to discover whether that something is physical, intellectual, emotional, or, as is so often the case, a combination of all three. When the condition has been diagnosed, it also makes it possible for treatment to be carried out simultaneously along any or all of the three lines.

The procedure at the Centre is as follows: Any child who is causing anxiety to his parents or teachers, or whose symptoms attract the attention of the School Medical Officer, can be referred to the Centre. The child is first medically examined and if any physical disorder is discovered arrangements are made for its appropriate treatment. The psychologist next tests the child to determine the degree of his intelligence. If the intelligence is found to fall below a certain level, the child is not accepted for treatment, as the Centre does not deal with mental defectives. Further tests are given to discover whether the child's educational attainments are on a level with his intelligence. If this is found not to be the case, investigations are carried out to discover whether his failure is due to gaps in early education, special disabilities or other causes. When the trouble has been definitely diagnosed, special steps are taken in conjunction with the child's teachers to remedy the defect disclosed and help the child to recover lost ground.

The emotional development of the child is then investigated by the psychiatrist by means of talks with the child and his parents. If emotional difficulties are brought to light, the psychiatrist decides whether those difficulties are of such a nature as can be dealt with by psychiatric interviews, and the adjustment of the child's environment, or whether a neurosis is present which calls for more prolonged and specialised investigation and treatment. In the latter case, he refers the child to the Play Therapist who by her special technique in the play-room is able to investigate the deeper levels of the child's mind and deal with the situation which is revealed. In these cases it is often of the greatest advantage to have the child temporarily transferred to the Open Air School. This not only renders him easily available for treatment when required, but it also enables observation to be kept on his behaviour in the classroom and the playground, and facilitates the very valuable collaboration between the Centre and his teachers with regard to any remedial treatment which may be necessary.

Since its inception, the Centre has dealt with 73 cases. Although it would be premature at this stage to talk about cures or make any attempt to

tabulate results, it can be definitely stated that in quite a number of cases the symptoms for which the child was referred to the Centre have either entirely disappeared or have ceased to cause anxiety.

The great majority of cases have come from inside the Borough, but a few have—by special arrangement—come from outside, some of these travelling as much as fifty miles to attend for treatment.

It had been hoped that the staff at the Centre which at present consists of a psychiatrist who attends one day a week, a whole time play-therapist, a part time psychologist, and a part time clerk, would have been completed by the addition of a psychiatric social worker. Unfortunately, the War has made this impossible. Her duties, which mainly consist in maintaining contact with the child's home, have been undertaken by the Play-Therapist in addition to her other duties. This arrangement has worked quite well, but owing to the time involved, it has limited the number of cases which could be accepted for play-therapy.

It is impossible in the space at our disposal to give detailed information about all the work undertaken, but a short description of three cases is given to illustrate the three different types of treatment which are available at the Centre.

In the first case the root of the trouble proved to be intellectual and the treatment was, therefore, left in the hands of the educational psychologist.

Tommy, a boy aged 12, was referred for his unfounded fears of school. A preliminary interview showed that the fears centred round a particular teacher, his dread having once caused him to run away during a school session. Further investigation revealed the following facts. His intelligence was quite good (mental age over a year more than his actual age). His knowledge of arithmetical processes was even better than his mental age would warrant, but his skill on the mechanical side was deficient, being more than two years behind his mental age. Since he was working in an "a" class it became clear that his fear of the teacher arose out of his own maladjustment to the class in this respect. For example, many of the basic addition combinations were not known and had to be built up, *e.g.* $9 + 6 = 9 + 3 = 12$ and then $+ 3 = 15$. The consequent loss in speed and accuracy, which on the face of it was slackness and carelessness, was then seen in its true light. Coaching was arranged and six months later it was reported that the boy was well on the way to becoming top of the form in maths.

In the second case, the difficulties were emotional, but of such a nature that the psychiatrist was able to deal with them by psychiatric interviews and without having to have recourse to play-therapy.

Dick and Jim were brothers of thirteen and twelve respectively. The elder was referred to the Clinic for asthma, and the younger because he was disagreeable and quarrellsome, wet the bed, and had been guilty of theft. Investigation revealed the following situation. The elder boy had his tonsils and adenoids removed at the age of 2½ years. He was done at home without previous explanation. As he did not stop crying from the moment he went into the room until he was carried out, it is probable that the operation was a most painful and frightening experience for him. It may have made him distrustful of his Mother's love, with a consequent feeling of insecurity. It

may have had even deeper unconscious significance for him. At any rate, he became very nervous afterwards, was terrified of doctors, and soon began to have asthmatic attacks at night. These attacks aroused intense anxiety in his Mother and caused her to give constant attention during the night. In between attacks he developed a harsh dry cough which served the same purpose of arousing maternal solicitude. The younger boy, who slept on the other side of the bed, soon became aware of this state of affairs, and entered the battle for his Mother's attention. The weapons he chose, however, were different. At night he compelled his Mother's attention by wetting the bed, whilst by day he fought for what he wanted by generally aggressive behaviour. At meal times, both boys exhibited capricious appetites so that their Mother had to be continually coaxing first one to eat and then the other. As time went on the struggle intensified, the younger boy demanding everything his brother received, even medical treatment, and the home was made unhappy by the constant scenes between the boys. It was significant, however, that they only quarrelled in the presence of their Mother. Alone by themselves they played happily together, and neither boy gave his Mother any trouble in the absence of the other. Significant also was the younger boy's first theft, in which he stole something which his Mother valued and later gave it to a policeman, saying he had found it.

In psychiatric interviews with both boys and their parents, the whole situation was thoroughly gone into. Although it was felt, particularly with regard to the elder boy, that play-therapy might prove necessary, both boys improved so rapidly that this was not required. Four months after the first interview, the parents reported that the elder boy had been entirely free from asthma since attending the Clinic, and that the younger had ceased to wet the bed and was showing a great all-round improvement in his behaviour.

In the third case there were deep seated emotional difficulties which necessitated a course of play therapy.

Cyril, aged 9, was referred to us on account of his nervous mannerisms which consisted of blinking and twitching of eyes, and his inability to mix with other children. He had always been nervous, wept easily when he was scolded, and his mother reported that " something seemed to hold him back from playing with other children." At school he lacked emotional control and would start crying for no apparent reason, otherwise his behaviour was good and he worked well. The family were comfortably off. There was one other child, a girl 2 years younger than Cyril; she was healthy and full of life. During infancy, Cyril had had a bad time. Firstly, his Mother could not feed him and it was some time before she was able to find a food that suited him and was not too rich. He was continually sick until at three months he was a wreck. At four months he had boils on his neck which had to be drained. At six months he was operated on for an abscess in the throat. By thirteen months, however, he was a fine baby. From now his development was normal until he was three when he was found to be knock-kneed and his legs were put in irons for six months. From his point of view as a baby, therefore, he had been continually attacked, pain was always being inflicted on him and his activity curbed.

At 4½ he went to school. For the first three months his mother had to take him. He cried in school and whenever he was put into a new class he was upset and had spasms of twitching. Round about 6 he had whooping cough, mumps and measles. At 8½ he was treated for chorea and had his tonsils and adenoids removed. At home he was made to be quiet and to play with construction toys, so that when not prevented by illness his impulses to run about and make a noise were prevented by Mother. On examination at the Children's Centre, he was found to be intelligent; his Intelligence Quotient was 129. In the playroom he made thirty-five attendances over a period of five months. During the first few interviews he was told why he came here and played and his play revealed the following four themes:—

(1) In the sand tray he continually made scenes in which road traffic was held up at a level crossing by trains. That is, one form of movement was stopped by another form of movement. This was pointed out to him.

(2) He staged fights in which (*a*) one side wanted the food that the others could get much more easily, and (*b*) one side was just fighting the other; he was picturing a simple conflict.

(3) He complained about the noise that other children made. His complaints, however, were couched in such aggressive terms that the dislike seemed to be false.

(4) He wished to get on with other children.

Next he was asked what kind of things babies would want. He said that a baby would want to walk and to grow up. We then discussed the horrid time he had had as a baby, and how he would have felt that Mother was horrid, stopping him from doing what he wanted and hurting him. We also talked about hidden conflicts and how at times these hidden emotions would surge up and make him have feelings for which he could not account.

In order to get some light on his attitude to food, he was asked to make a story illustrating greed. He pictured it thus: a boy was walking along the road, he saw some food, he ate it all, grew very fat and died. This served as a basis to talk about his early food difficulties.

He was next asked to illustrate sadness. He pictured it in this way: a boy hit another boy, the others then refused to play with him and he was left alone crying. Cyril admitted that he had a temper sometimes. As his strong urges to walk, to strive to grow up, had been thwarted in early childhood, it would tend to make him feel that such urges were wrong. So at this point we talked about strong feelings of all kinds and discussed their goodness, how without them we would never do anything. We must let these feelings come out and then use them; it was no use bottling them up and that—after all—sometimes people deserved to be hit.

He now began to let himself go. The next picture he made in the sand was a jungle with wild animals scattered all over. He had a messy time with sand and water, and storms played havoc with the objects on dry land. Soon he became very boisterous. He built brick structures and knocked them down; he played very noisily with run-about toys and became violent with skittles. Any unwary person entering the water room got squirted with much joy. He drew a picture of a haunted house with ghosts lurking round

the corners—these were to frighten Mother. This went on till he had let off much steam. After this he joined another boy playing quietly with soldiers and forts, his main interest being in the building and lay out of the forts.

By now his Mother reported that he was a changed boy. He was boisterous at home, was occasionally aggressive to his sister, and played normally with other children. His twitching, too, had not been noticed for some time except when he had a bad cold and his nose was blocked. The school had forgotten that he was supposed to be a nervous child, and could not imagine why he was attending the Centre. In addition, his intelligence was re-tested and his Intelligence Quotient had gone up ten points.

STATISTICS

The following statistics, which refer to the cases dealt with at a Children's Centre during 1940, give some idea of the complexity of the symptoms found in the cases referred to the Centre, and the advantage of a many-sided attack on the problem of the remedial treatment.

Reasons for which cases were referred. Where children were referred for more than one symptom each is included in the following list as a separate item.

(*a*)	*Nervous Disorders*	..	17 cases.
	Shyness	1	
	Night terrors	4	
	Nervous	4	
	Sleepwalking	1	
	Irritable	2	
	Unstable	5	
(*b*)	*Bodily Disorders*	..	39 cases.
	Enuresis	23	
	Fits	2	
	Eczema and Asthma	1	
	Habit spasm	5	
	Stammer	2	
	Lassitude and loss of memory	1	
	Fainting	2	
	Depraved appetite	1	
	Lack of appetite	1	
	Insomnia	1	
(*c*)	*Behaviour Disorders*	..	24 cases.
	Aggressiveness	2	
	Difficult to control	4	
	Sex difficulties	1	
	Stealing	15	
	Running away from home	1	
	Indecent behaviour—likes to be thrashed	1	

(*d*) *Educational Disorders* .. 5 cases.
(*e*) *Vocational Guidance* 1 case.

TYPES of TREATMENT. These may be summarised as follows :—

(1)	Psychiatric interview	19 cases
(2)	Psychiatric interview and educational	2
(3)	Psychiatric interview and Play Therapy ..	2
(4)	Psychiatric interview and Open Air School	1
(5)	Psychiatric Interview, Play Therapy and Open Air School	2
(6)	Psychiatric interview, Play Therapy, Educational and Open Air School	1
(7)	Play Therapy only	33
(8)	Play Therapy and Educational ..	3
(9)	Play Therapy and Open Air School	25
(10)	Play Therapy, Educational and Open Air School ..	4
(11)	Educational only	2
(12)	Open Air School only ..	2
(13)	Investigations with Report :	
	To other Education Committee	1
	To M.O.H.	2
	To Magistrates ..	2
	To Parent or Guardian ..	4

RESULTS. (Psychiatric treatment = P; Remedial Education = E; Open Air School = S; Play Therapy = T.)

Treatment	Satis-factory	Much Improved	Improved
P	6	1	—
P & E	1	—	—
P & T	3	2	—
P & O	—	1	—
T	10	1	1
T & E & S	1	1	—
T & S	3	—	1
E	1	—	—

ABORTIVE CASES.

Reason.

Parents unco-operative:
(*a*) Immediately 10 cases
(*b*) Subsequently 8

Unsuitable:
(*a*) Mentally Defective 5
(*b*) Physically Defective .. 4
(*c*) Mother's mental condition 1

Symptoms cleared before admission	9 cases
Removed	7
Never came	2
In hospital ..	1

INTELLIGENCE QUOTIENTS OF CASES TREATED.

I.Q. = 130 and above ..	4 cases
,, 121—130	10
,, 111—120	12
101—110	18
91—100	27
81— 90	14
71— 80	6
70 and below	4

CHAPTER XVII

PART TIME EDUCATION

IN addition to the provision for full time education which has been described in the previous chapters, there is in existence a wide variety of provision for part time education. It is essential that the organiser of any unit of the full time system should be aware of the nature of the part time provision and of its relationship both to the whole system and to his or her particular unit. Unless there is this reciprocal knowledge and awareness, the one of the other, there will be inevitable overlapping and conflicting aims. Where, as is the case in this country, voluntary effort has preceded State provision, and where the two continue to exist side by side, there is need for co-ordinating machinery unless effort is to be misdirected and wasted. This existence, side by side, of voluntary effort and State provision raises delicate questions of control and management for the administrator and organiser. The voluntary bodies need official grants to stimulate and extend their work. On the one hand many of them value highly their independence and fear lest the acceptance of an official grant may not lead to a relinquishment of their independence or, at least, of some measure of it. On the other hand the official view is that there must be some measure of control over the expenditure of public money. The reconciliation of these two points of view is only one of the problems which arise in the sphere of part time education.

There are many ways in which the activities included under the general heading of part time education could be classified, and none of them would be entirely satisfactory. It would be possible to deal with the provision for adolescents and young persons up to the age of 21 years in one group and with those for adults in another. But the two groups are not, of course, mutually exclusive. A dramatic club or a recreational club or a technical institute may provide for individuals belonging to either group.

Another classification would be based upon the type of work involved. In some cases the aim is to provide *training for work*, and the objective is success in some career. This group would include many evening classes, but not all. Some of the work is *purely recreational*, that is, it is intended to supply occupations and develop interests to be followed up in the leisure time of the participants. Dramatics, literature, music, arts and crafts are

examples of recreational activities. According to the nature of the class, however, the work in any of these cases may have a vocational bias.

A classification of part time educational provision on the basis of whether it is State provided or voluntarily provided is not entirely satisfactory, for in much of it both the State and voluntary agencies are concerned. So while it is impossible to classify the provision fully either by the age of those participating or by the nature of the work done or by the kind of authority responsible for it, the first mentioned classification, *i.e.* that by the age-range concerned is more in keeping with the classification adopted with regard to the full time provision of education, and will be followed here as far as possible.

Although there are notable exceptions, the most striking feature of the provision of facilities for further education for adolescents and youth prior to the present war was its one-sided character. The Junior and Senior Evening Institutes and the Technical Colleges were there to provide commercial and technical training. Facilities for recreational activities, whether physical or mental, were rarely to be found. A comparatively few clubs made some effort in this direction and in that of social training. Although it is true that at some Evening Institutes there were a number of classes not strictly vocational, most of the classes were in organised courses, leading from the two-year Junior Commercial or Technical course at the Junior Institute (for adolescents from 14 to 16 years) to the Senior courses for those of 16 plus and to the Technical and Commercial Colleges. Thus a system of evening classes was organised to provide a continuous course from the Senior School stage to the advanced courses at Technical or Commercial Colleges. Although provision for other kinds of classes and activities was made here and there, in the main both the Junior and Senior evening classes were more concerned with the immediate needs of the working life of the young person, and took little account of his other needs.

This problem of the fuller education of adolescents and youth has received attention from time to time. In 1916 an attempt was made by the setting up of Juvenile Organisations Committees to give system and drive to the voluntary work which was being done, and to associate Local Education Authorities with the voluntary bodies. In some areas voluntary effort was encouraged and supported by the Local Authorities. In other cases a new type of Recreational Institute under their own control was set up by the Authorities in populous centres. The movement was crippled by

the financial crisis of the 1930's, with a resulting pressure on educational funds by other educational needs.

The Juvenile Organisations Committees published some memoranda which served the dual purpose of focusing attention upon the educational needs of young people and possible methods by which these problems might be solved. For example, in November 1935 the Committee published a report on the need for Youth Community Centres on new housing estates. In this report the Committee says:

" For the want of suitable buildings work among juveniles is gravely hampered and on some of the estates is hardly in evidence. While, therefore, new houses have been built in very large numbers, there is a danger that the policy of providing a satisfactory environment for those hitherto living in slums will not be completely fulfilled unless provision is made for the social welfare of dwellers on the new estates. Such provision is a corollary of the housing policy, since these estates have themselves come into being as a means of rehousing those who have hitherto lived in unsatisfactory conditions. Little imagination is required to realise that it is not enough merely to rebuild slum houses elsewhere, but that there must be adequate means whereby life can be made enjoyable, co-operative and progressive. This ideal can never be realised if the only rooms larger than working class parlours are to be found in churches, cinemas, schools and public houses. It would be a dangerous form of economy, in order to save a few thousand pounds, to deprive so many of the adolescent population of the cultural and civilising influences that organisations working among juveniles are so well qualified to give.

" In these days when public attention is becoming more and more focused upon the needs of young people after leaving school the importance of the work of juvenile organisations needs no advocate. More than half of the population of new housing estates is under the age of 18. These estates are, therefore, an ideal field in which the work of the juvenile organisations is most likely to bear fruit, yet it is on these estates that they find their greatest difficulties.

" The main difficulty in solving the problem of meeting the needs of juvenile organisations in new housing estates lies in the character of these estates themselves. Many of them are some distance away from the centre of the town from which they have sprung, the residents are all drawn from approximately the same economic level, few of them have incomes of more than £3 10. 0. per week and there is no " leisured class "; hence youth leaders are hard to find and money is scanty.

" Above all there are few buildings with halls. Even where halls exist the problem is not solved because an essential feature of

youth work as well as adult is the need for medium sized rooms. Before a large and stable organisation can be built up capable of filling a hall, *e.g.*, for a dramatic or gymnastic display, a great deal of preparatory work has to be done by small groups. This demands the use of medium sized rooms which are simply not to be found on new housing estates.

" It is this need for premises which presents the first difficulty of our problem. In ordinary urban areas juvenile organisations can at least find some premises, however inadequate, capable of housing a large number of their members. In the new housing estates, excluding elementary schools, such premises scarcely ever exist. It is natural, therefore, to look to the schools as a possible solution of the problem, particularly as this would be a much cheaper course than the provision of a separate building. At the same time the disadvantages of this solution must be faced. The schools naturally were not built with a view to being used as Community Centres; in particular there is little or no storage accommodation and rarely would it be possible for a club to have a room it could call its own in which to keep its equipment. Moreover many members of youth organisations would much prefer to meet in some premises other than their old school buildings, however far removed the activities of the organisation were from those of an ordinary school. Further, there are many other calls on the buildings of the school and to use them for young persons would often deprive the children actually attending the school of the use of the buildings as play centres; it would also interfere with their use for evening classes and for other purposes. In short, schools are frequently not available, and are never entirely suitable, to meet the need of premises for voluntary organisations."

With regard to the control of the centre visualised by the Committee, the following extract from the report should be noted:

" Ideally, we consider that in order to develop corporate activity and a sense of responsibility for the estate, the management of the building should be vested in those who will use it. Naturally, however, if the Local Authority build or largely contribute to the cost of building, they will require some representation on the Managing Committee, together with safeguards as to the use and management of the Centre. Where there is an active local Juvenile Organisations Committee with representatives of the Local Authority upon it, that Committees may well prove to be the most suitable body in which to vest the management of the Centre.

" For any Centre intended to be used for juveniles, the appointment of a full time Warden will generally be found essential. He will be much more than secretary of the Management Committee and custodian of the building. If a suitable person is appointed—

and we are confident that this can be done—he or she will form the focus round which work among young people on the estate will develop. The Warden will stimulate, advise and arrange for the training of those who can become youth leaders, and will co-ordinate and guide the various activities for the welfare of adolescents on the estate."

It is pointed out that there are several sources from which the necessary capital to provide the centre could be found. Amongst these are voluntary sources such as the estate itself, voluntary subscriptions and the Public Trusts. After examining these possibilities the Report comes to the conclusion that " the problem of providing Community Centres on new housing estates will not be solved without the financial assistance of Public Authorities." The Report further points out that Housing Authorities, Parish Councils, and Local Education Authorities all have various powers enabling them to give assistance to Community Centres. The Report concludes with details relating to centres already in existence, and these should be studied by those interested in the matter. A plan of a suggested centre is also given, together with the following information concerning the accommodation recommended. This is reprinted below, since it gives a good picture of the facilities required in such a centre.

" EXPLANATORY NOTE ON SUGGESTED JUVENILE COMMUNITY CENTRE FOR A NEW HOUSING ESTATE

" The design has been prepared for the National Council of Social Service to illustrate proposals framed by representatives of some of the leading national organisations working with boys and girls on new housing estates. It is intended to show how a building of this size could provide for four or five organisations (i) a headquarters room or office; (ii) a share in the use of a gymnasium, hall and other accommodation for special activities. Opinions will of course differ as to the best arrangement of such accommodation.

" The Centre would thus supplement the smaller and less well-equipped premises in which units connected with, *e.g.*, religious and social organisations, carry on much of their work.

" The work of a large number of small clubs, brigades or scout troops in different parts of the estate would be greatly assisted by the provision of such additional central facilities and they would share in the advantages provided without losing their own identity. The accommodation provided is as follows:—

Gymnasium 60 ft. by 30 ft.

Changing rooms for boys and girls about 15 ft. by 14 ft. each, with lavatory accommodation and cloak rooms with 100 lockers in each.

Shower baths for the boys.

Two club rooms 24 ft. by 20 ft. and 24 ft. by 28 ft.
A library 24 ft. by 20 ft.
A workshop 24 ft. by 20 ft.
A craft room 24 ft. by 20 ft.
A common room with kitchen and canteen adjoining 27 ft. by 22 ft.
Four offices 14 ft. by 12 ft. for the headquarters of various organisations.
One office 14 ft. by 13 ft. for the Warden.
A hall 60 ft. by 30 ft. with two rooms for performers 10 ft. by 12 ft. and necessary sanitary accommodation.

" The hall adjoins the common rooms and is connected by folding doors so that in any entertainment where refreshments are provided the common room can be available for the purpose. There is a door into the craft room to allow this room to be used in connection with the stage, so that properties, etc., can be made there, and the room used during performances if required. One of the lavatories attached to the stage would be available for the staff.

" An entrance hall is shown, off which the library, two club rooms and four offices would open. The entrance hall is 34 ft. by 11 ft. The central corridor, 6 ft. wide, would be lighted by ceiling lights. A store room for equipment, etc., is provided, 16 ft. by 6 ft. It is proposed that an outbuilding should be provided for camping equipment, etc., available for the various organisations. Heating by low pressure hot water, with chambers where most suitable as regards levels of site. Ventilation by trunks in the roof and extract over entrance hall.

" Approximate estimate—£8,000 to £10,000."

In 1937 a Physical Training and Recreation Act was passed, and in July of that year a memorandum was issued dealing with the powers of Local Authorities under the Act. A National Advisory Council and a Grants Committee were formed by the Board, and in addition local Area Committees were set up, upon which Local Authorities were represented. The functions of these Committees were to encourage local schemes and to consider applications for financial assistance. The memorandum deals with a number of possible fields in which Authorities might operate. Amongst these are the provision of Community Centres, Gymnasia and Playing Fields, Swimming Baths, Holiday Camps and Camping Sites, and the training of Wardens, Leaders, and Instructors. As the memorandum quite rightly says, " The success of the movement for better facilities for physical training and recreation will depend largely on the extent to which a supply of suitably trained leaders and instructors can be secured."

The National Fitness Council took over the control of the work carried out under the Act referred to above, and also to a very great extent that of the Juvenile Organisations Committee. The latter body continued to issue occasional memoranda, and one of

these, published in May 1938, is of importance. It deals with the constitution and work of Local Organisations Committees, and the following extract expresses clearly its point of view:—" If present tendencies in social habit continue, in another forty years there will be in this country at least a million less adolescents than there are now. Dwindling numbers will give young life a higher value, and the lavishness with which it has been used when it was plentiful will soon be seen to be the grossest form of national extravagance. It would hardly be possible, therefore, to exaggerate the importance to the community of avoiding the wastefulness of leaving any young people to struggle through the years of adolescence unguided, unguarded and untaught."

It is impossible within the confines of the present chapter to discuss this memorandum in full, but the following information regarding the Southampton Juvenile Organisations Committee, which is printed as an appendix to it indicates the kind of organisation visualised.

" (1) Objects. (*a*) To promote the mental, moral, physical and social welfare of children and young people.

" (*b*) To stimulate local interest and public opinion about all questions affecting the welfare of children and young people, and to secure that so far as possible boys and girls have every opportunity of becoming healthy, happy and useful citizens.

" (*c*) To bring together all local organisations formed for the purpose of welfare work among boys and girls, so as to secure mutual help and avoid overlapping and waste of effort.

" (*d*) To ascertain how far the needs of boys and girls in the district are being met by existing local organisations.

" (*e*) To make a survey of existing local organisations and to compile and keep up to date a handbook for the information of voluntary workers, parents, education authorities, school teachers, magistrates and probation officers.

" (*f*) To strengthen existing activities, to suggest the lines upon which new work should be framed, and to assist in its development.

" (*g*) To encourage the various organisations to support one another in matters of discipline and control, and to facilitate the transfer of boys and girls from one organisation to another when occasion may arise.

" (*h*) To co-operate with the Local Education Authority for the area in developing the possibilities of Section 86 of the Education Act, 1921, under which facilities for social and physical training may be provided or aided by the Authority: (1) by placing at their disposal the experience of voluntary organisations for work among boys and girls; (2) by securing voluntary workers to help in Play Centre schemes and social and club work in connection with the schools.

" (*i*) To obtain particulars as to available open spaces and playing facilities suitable for organised games for both boys and girls, and to co-operate with

the appropriate Committee of the Local Authority with a view to meeting demands in this respect.

" (*j*) To develop healthy recreational and physical training by the promotion of inter-organisation activities and competitions.

" (*k*) To consider in consultation with the Magistrates and Probation Officers to what extent voluntary organisations may be able to assist Probation Officers in carrying out their work.

" (*l*) To consider in co-operation with the Juvenile Employment Committee or Juvenile Advisory Committee in what manner the Committee may assist in questions relating to the employment of boys and girls, and in persuading unemployed boys and girls to attend approved courses of instruction.

" (*m*) To obtain, collect and receive money and funds by way of contributions, subscriptions, grants or legacies, and to receive gifts of property of any description for or towards the objects of the Committee, or any of them.

" (*n*) To assist any body or bodies financially or otherwise in the furtherance of the above purposes or any of them.

" (*o*) To do, or cause to be done, any other thing which the Committee consider to be desirable for the promotion of the objects mentioned above, or any of them.

" (2) CONSTITUTION. (*a*) An Annual General Meeting is held each year at which the Annual Report and Statement of Accounts is received and the following honorary officers elected:—President, Vice-Presidents, Treasurer, Chairman, Vice-Chairman and Minute Secretary.

" (*b*) Management is by a Council, constituted as follows:—(i) The Chairman, Vice-Chairman, Treasurer, Minute Secretary and Organising Secretary.

" (ii) Two representatives appointed by each of the undermentioned organisations:—The Boys' Brigade. The Boy Scout District Associations. The Girl Guide Divisions. The Girls'' Friendly Society. The Girls' Life Brigade Battalions. The Southampton Federation of Boys' Clubs. The Southampton Federation of Girls' Clubs. The St. John Ambulance Brigade (Cadet Division). The Southampton Education Committee. The Southampton Head Teachers' Association. The Southampton Teachers' Association.

" (iii) The Chairman or Secretary of each Sports Section of the Southampton Juvenile Organisations Committee, as elected by each Sports Section Committee.

" (iv) Such individual members as might be co-opted by the Executive Council.

" (v) Co-opted members not exceeding 25 per cent. of the above. In addition there are a number of sub-Committees, *e.g.*,

Physical Training Advisory Committee.

Hobbies and Handicrafts Exhibition Committee, etc.

" (*c*) Full Membership—Full membership is open to all local Battalions, Federations, Associations, or Divisions of National Youth Organisations, and units thereof.

"(d) Associate Membership—Clubs attached to business houses, or non-uniformed organisations which are not affiliated to one of the National Youth Organisations, but which receive the approval of the Executive Council, may be considered eligible for Associate Membership of the Southampton Juvenile Organisations Committee. Associate Membership shall entitle a unit to take part in any activity organised by the Committee, such units not to be eligible for representation on the Executive Council.

" (3) FINANCE. The administrative expenses of the Committee are met by a grant of £500 per annum from the Southampton Education Committee, of which approximately £365 is spent on salaries and wages; the balance being mainly allocated to rent, lighting, heating, etc., and printing and stationery.

" (4) SURVEY OF WORK. Since its inception in 1929, the Southampton Juvenile Organisations Committee has greatly strengthened the local Federation of Girls' Clubs and has brought into being the local Federation of Boys' Clubs. It has assisted in the formation of new clubs and units in areas where these were specially needed, and has acted on behalf of its members in negotiations for premises and headquarters. There are now 216 units affiliated to the Juvenile Organisations Committee with approximately 6,500 members. In addition, there are 79 units of Junior Organisations catering for younger children.

" The Juvenile Organisations Committee has created football, cricket, netball and swimming leagues and has organised each year an exhibition of hobbies and handicrafts. It has been responsible for the organisation of training courses for leaders of physical training, drama, sports and games, handicrafts, etc., and has arranged on behalf of the Education Authority 20 physical training classes for girls and 15 for boys. Instructors in handicrafts were appointed by the Education Committee to 9 Juvenile Organisations Committee units during the past year and instruction was given in woodwork, beaten metal, other metal crafts, leather-work, needlecraft, etc.; arrangements were made for lectures on handicrafts and juvenile organisations to be given to leaders' training courses and officers' conferences.

" In general, the Juvenile Organisations Committee has fostered the educational work of the various clubs and units affiliated to it largely with financial and other backing from the Local Education Authority. It has gradually come to be looked upon as the natural centre of all young people's work in the district."

In November 1939 the Board of Education issued Circular 1486 entitled " The Service of Youth." This stated that the Government had had under consideration the needs of the younger generation of the country, and that in spite of the work done by Local Education Authorities and voluntary bodies, the provision of facilities for recreational and other activities for young people fell short of the need. The Board of Education was therefore to be charged with responsibility for youth welfare. A special branch of the Board was constituted to deal with the matter, and a National Youth Committee established. The circular stressed once more the need for

co-operation between Authorities and voluntary bodies in a common effort to provide satisfactorily for the needs of young people. All Local Education Authorities for Higher Education, *i.e.* all Part II Authorities, were urged to take immediate steps to set up a properly constituted Youth Committee. Part III Authorities were to work in close conjunction with the Part II Authorities in their own areas.

The Board's conception of the work of the local Youth Committees is indicated by the following extract from the circular:—

" The first duty of the Local Youth Committee is to formulate an ordered policy, which shall provide for meeting the most immediate needs and which shall indicate the lines on which a real advance can be made under more favourable conditions. For this purpose the Committee should ascertain the local needs and decide where assistance can best be given. In doing so, it should bear in mind that the better use of leisure, on which the welfare of youth largely depends, cannot be considered without reference to social and economic questions. For example, when young people are living under unsatisfactory conditions and are employed for unduly long hours, often on work of a dull and arduous character, they cannot be expected to take full advantage of any facilities offered for the use of such leisure as is left to them. The Committee will also plan the lines of future development showing clearly how the field should be covered and where the responsibility for any new facilities will lie. In this way the foundations of an ordered scheme of local provision will be laid without imposing an undue strain on public and voluntary finance.

" It is not the task of the Local Youth Committee directly to conduct youth activities, but to strengthen the hands of local authorities and voluntary organisations. But co-ordination is not enough; a new initiative is needed. Young people themselves must be encouraged to find through the Local Youth Committee new constructive outlets for their leisure hours and for voluntary national service.

" The principal directions in which local education authorities can assist financially are: first, in the provision of staff, office accommodation and clerical assistance, to which reference is made earlier in this circular; secondly, in making grants where necessary, towards the rent of buildings and salaries of full-time leaders and towards the upkeep and maintenance of premises, including the provision of equipment; and lastly, in providing competent instructors in such subjects as physical recreation and craft work for classes in clubs and other centres. Approved expenditure by local education authorities under Section 86 of the Education Act, 1921, will rank for grant at the rate of 50 per cent. There are many other practical ways in which the work of youth welfare can be

fostered by local education authorities. They can, for example, grant the use of their school premises free or at reduced charges, they can offer the use of playing-fields on favourable terms, they can make special concessions in their evening institutes to local voluntary organisations and they can give facilities for the purchase of equipment.

"The association of voluntary effort with the public system is typical of the history of the growth of the educational services in this country and will give the service of youth an equal status with the other educational services conducted by the local authority. In the Youth Committee the individual traditions and special experience of youth possessed by the voluntary organisations will be joined with the prestige and resources of the local education authority. The Board realise that the requirements of the civil defence services and the disorganisation of the public system of education under the present abnormal conditions make heavy claims upon the attention and the resources of local authorities. But the service of youth, too long a neglected part of the educational field, to-day assumes a new significance in the national life and the Board are confident that local education authorities will do all in their power to meet this challenge.

"The following notes in regard to the constitution of local Youth Committees are made in the hope that they may be of some assistance to authorities. They should be regarded as suggestions only, since it will obviously be for each authority to determine the constitution of the Youth Committee as appears best in the light of their knowledge of the particular circumstances of their area.

"The size of the Youth Committee will, it is suggested, be conditioned by two main considerations—first, that it should not be too large to impede speedy and effective action; secondly, that it should be, as far as possible, representative of all the interests concerned. On this basis a lay-out generally on the following lines might be found suitable:—

Chairman and Vice-Chairman (appointed by the Local Education Authority—one to be from the voluntary side)	2
Representatives of the Local Education Authority ..	6
Representatives of minor local authorities	2
Representatives of the principal voluntary organisations ..	2
Representatives chosen by other voluntary youth organisations in the area	2
Representatives of teachers	2
Representatives of religious denominations and philanthropic bodies	2
Representatives of local civic and industrial life	2
Representatives of public health, juvenile employment and similar services	4
	24

" In order to ensure that free and direct expression may be given to the views of youth, it may be desirable for some representation to be given, by co-option or otherwise, to young people of both sexes, not necessarily connected with any particular youth organisation.

" The authority may find it desirable to call a Conference, to which all youth organisations in the area and, in the case of Counties, the minor local authorities, might be invited to send representatives. The Conference might also be open to young people generally in the area, including those who do not belong to any particular youth organisation. Similar conferences might afterwards be called to meet at least once a year. It is realised that, at any rate in County areas, the authority might find some difficulty in making contact with all the voluntary youth organisations in the area and the Standing Conference of Juvenile Organisations (26, Bedford Square, London, W.C. 1) would be glad to render authorities any help needed.

" As indicated in an early paragraph in the circular, special arrangements will be necessary in County areas to associate Youth Committees in the Boroughs and Urban Districts with the County Education Committee and for the purpose of delegating the work the Authority may find it desirable to set up separate local Youth Committees in the areas covered by Part III Local Education Authorities and minor local authorities."

Subsequently the Board issued Circular 1516 entitled " The Challenge of Youth." This circular is " an attempt to give some guidance on the general aim and purpose of the work and to find, in the many and varied types of facilities provided, some common element which will serve as a foundation of the new movement."

It finds this general aim in the social and physical training which links all youth organisations to one another and to the schools. It points out that throughout the school life of the child efforts are continually made to bring him into right and normal relations with his fellows and to develop bodily fitness by games and recreation. This process is, however, arrested for many children when it is most needed. Hence arises the need for a new organisation.

So the Board established a Youth Branch, and the circular stated that " the principle had been accepted that Youth Welfare must take its place as a recognised province of Education, side by side with Elementary, Secondary and Further Education." The relationship which is visualised between the State, the Local Education Authorities and the voluntary bodies is stated in the following words:—" Any attempt at a State controlled uniformity or regimentation would be both stupid and perilous; more than that, it would be wholly alien to the spirit of this country. The

function of the State in this work is to focus and lead the efforts of all engaged in Youth-Welfare; to supplement the resources of existing national organisations, without impairing their independence; and to ensure through co-operation that the ground is covered in a way never so far attained. The function of Local Education Authorities is equally clear and essential. They are to take the initiative in their local areas; provide the machinery for local co-operation; encourage existing organisations to extend their work; and fill the gaps not covered by such organisations."

Local Youth Committess must take account of the different types of organisation now in existence. The chief of these are:—

"(1) *Separate Clubs or Units.* Separate Clubs, belonging either to a voluntary body, a Church or a Works, exist throughout the country. Such Clubs regard it as a matter of the first importance that they should work on their own lines and in their own surroundings.

"(2) *Youth Centres.* A well designed or adapted Youth Centre may be provided by a Local Education Authority or by voluntary effort or by both. A full-time Warden is usually essential. In such Centres all local units, voluntary and otherwise, can meet regularly and share the use of the hall, gymnasium and other facilities.

"(3) *Recreational Evening Institutes.* Evening Institutes vary with almost every Authority, but in recent years, and particularly since the war, they have developed strong recreational sides. In some cases the Institute has partaken more of the nature of a Club, and a tradition for social work among youth has been established.

"(4) *Old Scholars Clubs.* Old Scholars' Clubs meet most frequently in school premises. The modern Senior School, with its ample facilities for practical work, physical education and, in the countryside, for gardening and Rural Science, is well adapted for youth activities. A separate entrance and rooms are often useful additional facilities.

"(5) *Emergency Clubs.* In more recent months Emergency Clubs have been opened, often in makeshift premises, for young people of both sexes as a means of combating the effects of war and the black-out. Their objective has been limited; but it is hoped that, by their informal methods of approach, they may lead young people to make a better and fuller use of leisure."

These have certain elements in common, the three most important being:—

(*a*) Social Facilities.—Clubs furnish meeting places for young people and also provide a definite training for membership of a free society.

(*b*) Physical Recreation.—"The general aim of a scheme of physical recreation should be to provide opportunities for the

practice of wholesome physical activities conducted in such a way as to create a satisfied body and a joyful spirit." Enthusiastic leadership is essential.

(c) CONTINUED EDUCATION.—" While better social facilities and proper physical recreation form the background of youth training, there is, of course, a wider range of opportunity offered by Technical Colleges, Evening Institutes and, to some extent, by voluntary bodies. This is not the place to describe the variety of vocational subjects open to the part-time evening student. But, apart from such courses of a more formal kind, there is an increasing interest shown, particularly among the older boys and girls, in music, dramatics, discussion and debating societies. In some areas the Technical Colleges and Evening Institutes have developed a corporate life of their own very parallel to that found in the several organisations of the voluntary bodies. Local Youth Committees would do well to encourage and develop musical festivals, dramatic competitions and art and craft exhibitions, because it is in such activities that the beginnings can be made of the practice of citizenship.

" In the Counties and the countryside where Young Farmers' Clubs and new Senior Schools exist there is ample room for new experiments. Here in particular the formation of Old Scholars' Associations will form a valuable link between school and post-school life. The rich background of tradition, the obvious opportunities of the country itself, the wartime demands for service in agriculture and forestry, the mingling of town and country children in reception areas, all these should be used to the full by County Youth Committess in developing their future policy.

" Neither in town nor country can any hard and fast line be drawn between vocational and cultural activities. Handicraft and housewifery classes, courses in dramatics, literature and history, an introduction to the world of science—such studies should find a place in the all-round development of young people. It is in the method of teaching and choice of teacher that the greatest care should be taken if the best results are to be obtained."

Most Local Authorities threw themselves enthusiastically into this work. It was realised that the first step would have to be a survey of existing organisations and the work they were doing, and a decision as to how far they could be expanded and what new clubs or societies would have to be set up to fill in the gaps. The need for enlisting the active co-operation of the young people themselves was recognised in some areas by the establishment of a Council of Youth—a body composed of young people between the

ages of 14 and 20 and representative of existing clubs, societies, and organisations, with provision in the constitution for representatives of the Council to sit with the Local Youth Committee when matters raised by the Council were under discussion.

In August 1940 there was set up a Directorate of Physical Training. The relationship of this Directorate to the recently established Youth Committees may be gathered from the following opening sentence of a memorandum addressed to Local Authorities: "As the Authority will be aware, the Board are anxious to secure the further development of physical training and recreative work among young people of both sexes and for this purpose the President has set up a small Directorate of Physical Recreation to work in close association with the Youth Branch of the Board and in co-operation with the War Office."

It is too early to say what the effect of this will be upon the work of the Youth Committees. Of the three functions of a Youth Committee as stated above, viz. the provision of social facilities, physical recreation and continued education, it appears to be the intention to deal with the second through a separate organisation, and to leave social and continuative education as the field of work for the Youth Committees.

There is no doubt that the end of the war will bring with it an increased recognition of the importance of the years from 14 to 20. One of two paths must be followed. Either between these ages the youth of a country must be trained to a sinking of all personality in the alleged interests of an all-powerful State, or they must be educated for an active participation in a community in which they are partners. Even during the stress of a great war thought must be given to the problem of the further education of the boy or girl for whom full time education ceases either at 14 plus or 16 plus. Care must be taken to see that full time education and part time education have the same general end. The organiser of full time education should be aware of the facilities for further education in the area and of their nature. The organiser of the part time facilities must be aware of what is being done in the schools. Any school which has an annual group of leavers should be able to explain to such leavers what further opportunities are open to them. Such information and advice should not be restricted to that concerning the recognised evening classes, important though these are. It should include social and sports clubs as well. Much more co-operation is needed before the best use is made even of the present facilities and before the present organisations make the greatest use of the work already carried out in the schools.

In some areas the idea of making the modern Senior School into a kind of communal centre has been explored, and the experiment of the Village Centres in Cambridgeshire and that of the general use of schools on new housing estates are worthy of study. It seems uneconomical to build a fine new school upon a housing estate which is lacking in facilities for communal activities and to confine the school to day-time use only, together with a little use for "evening classes." With care in planning it is possible to provide, at but little additional cost, facilities for club work, committee meetings, dramatic work and choral music, and a whole host of other social and educational facilities. The school can be a place where Parents' Associations and Old Scholars' Associations can meet; where dramatic and musical entertainments can be given and social activities of all kinds may be held. The committees of club societies can be housed in it; Boys' and Girls' and other Clubs can assemble there. Vocational evening classes and cultural ones can be held, W.E.A. and University Extension work can be developed. And all the time the bonds that really join the school to its society are strengthening and developing. The school is no longer a thing apart; it is of the community, expressing its ideals and leading the way to their realisation.

The facilities for the part time education of people of adult years is varied. All that can be given here is a snapshot of the work carried out by different organisations, some statutory and some voluntary.

The Local Authority organises evening classes, and these cover an ever-widening variety of subjects and groups of subjects. Many are of a vocational nature, providing training in technical activities, engineering, coal mining, bakery, grocery, commerce, and so on. Others are non-vocational, and many are of "interest" value only. The Universities, either by themselves or in conjunction with other bodies, provide lecture courses which vary from the single lecture on a selected topic to a three-year University course. There is the work carried out by the Educational Settlements Association, which was formed in 1920 to foster the growth of Residential Colleges for full time study and Educational Settlements for part time study. These are two forms of *institutional* Adult Education. Ruskin College, Oxford, was founded in 1899. Woodbrooke and Fircroft (Birmingham) in 1905 and 1909, and others later. There are now seven residential colleges in affiliation with the Association, nineteen settlements in affiliation, and eight in association with it. The growth of the work carried out can be gathered from the fact that in 1910 the Leeds Settlement offered the following classes:—

1. Child Life and Labour.
2. Economics and the Poor Law.
3. Modern Prophets and their message.
4. Germany and its people.
5. Personal Health and Hygiene.
6. Studies in Religion.
7. Teaching Method.

For the session 1939 the syllabus included:—

" 1. *Economics* (Two Courses).
First-Year Tutorial.
Advanced Tutorial.
2. *English* (Four Courses).
(*a*) Grammar and Expression.
(*b*) Literature.
(*c*) Play Reading.
(*d*) Drama.
3. *French* (Five Courses).
(*a*) For Beginners.
(*b*) Reading and Composition.
(*c*) Intermediate Course.
(*d*) Advanced Reading and Composition.
(*e*) More Advanced Oral work.
4. *German* (Five Courses).
(*a*) For Beginners.
(*b*) Second Year.
(*c*) Third Year.
(*d*) Fourth Year.
(*e*) Advanced Oral and Written Work.
5. *Handicrafts.*
6. *History.*
The Church and the Social and Political Life of Europe.
7. *International Relations.*
Events leading up to the present World Problems.
8. *Music* (Two Courses).
(*a*) Second-Year Tutorial.
(*b*) Third-Year Tutorial.
9. *Photography.*
10. *Physiology.*
11. *Psychology.*
Second-Year Tutorial.
12. *Psychology and Politics.*
Second-Year Tutorial.
13. *Science.*
Scientific Thought Yesterday and To-day.
14. *Speech Training* (Two Courses).
(*a*) Beginners.
(*b*) Second Year."

The number of classes held shows a remarkable increase. In 1910 the attendances at the Settlement in Leeds were reported as " very satisfactory, from 16 to 25 a night." By May 1918 the average weekly attendance was 235. In 1939 there was a total student membership of 738 with weekly attendances between 500 and 600. This kind of progression has been a feature of other Settlements, and according to the last complete record of classes held in all the Settlements affiliated to or associated with the Educational Settlements Association the number of classes was 767 with a total membership of 14,890. Of these classes 194 were submitted to the Board of Education for grant through Responsible Bodies—including the E.S.A.—under the Adult Education Regulations; 51 were University Courses—including 34 Three-Year

Tutorial Classes—19 One-Year Courses, and 124 Terminal and Short Courses. Two hundred and seventy-nine Sessional Courses were arranged under the auspices of the Local Education Authorities, and all were grant-earning. The remaining 294 classes were non-grant-earning, and were financed by the Settlements concerned. The following is a summary of these classes:—

DIAGRAM LI

Summary of Formal and Informal Courses held in the Settlements in Affiliation and Association with the Educational Settlements Association.

Academic Year 1938-9.

Type of Course.	No. of Classes.	Membership.
University Extension	8	192
University Preparatory	2	44
University Terminal	1	24
University Sessional	6	98
Three-Year Tutorial	34	614
W.E.A. One Year	8	159
W.E.A. Terminal	68	1,180
E.S.A. One Year	11	163
E.S.A. Terminal	12	162
Y.M.C.A. Short Terminal ..	44	680
L.E.A. Junior	24	714
L.E.A. Senior ..	255	6,095
Non-Grant-Earning	294	4,765
	767	14,890

The wide variety of subjects which can be studied is noteworthy. It is worth reprinting and studying because of the picture it gives of the many interests for which provision is made. This is given in Diagram LII page 298.

The Rural Community Centres, often in collaboration with the National Council of Social Service, carries on a number of social and other activities in the rural areas. Among these are educational services and certain health services such as the care of tuberculous patients and of delicate school children, and local co-operation with such bodies as the Rural Industries Bureau, the National Playing

Fields Association, the Council for the Preservation of Rural England, and the British Drama League. In 1937-38 eleven Community Councils were concerned in the organisation and provision of nearly 400 classes under the Adult Education and Further Education Regulations, the number of students being estimated at over 7000. The Physical Training and Recreation Act provided a stimulus to the provision of village halls, as may be seen from the following figures:—

Year	Annual Average per Year
1934–37	37
1937–39	92

One village with a population of 570 people reports that " during the winter the hall is open every night in the week from 6 p.m. to 10 p.m. and on Wednesday afternoons from 3 p.m. to 5 p.m. In the summer it is open from 6 p.m. to 10 p.m. on Wednesdays, Fridays and Saturdays. During the past twelve months there have been

Type of Meeting	Attendance
10 concerts	2,000
48 dances ..	2,850
50 whist drives	1,925
4 First Aid classes	220
3 A.R.P. Wardens' lectures	72
Keep Fit classes	167
5 educational lectures	300."

Again, the wide variety of interests can be seen. The great need is for co-ordination of effort and the avoidance of overlapping. The danger is that energy is dissipated because the objective is not clearly defined. Behind these problems of organisation lies the greater one of creating a cultural and communal life which is expressive of a modern, machine-using, co-operative, society. In the solution of this problem the schools and all the organisations which deal with part time education must collaborate. Recent developments in Totalitarian countries have indicated how the whole of the educational effort of a community, both formal and informal, can be used in the prosecution of war. It is for the Democracies to show that by integration at a higher level a more constructive and creative society can be evolved.

DIAGRAM LII

Schedule of Formal and Informal Courses Held in Settlements in Affiliation and Association with the Educational Settlements Association for the Academic Year 1938–9

Subject	*No. of Courses*	*Membership*
University Extension		
China, Past and Present	1	32
Comparative Religion	1	34
English Literature ..	1	36
Foreign Affairs ..	1	25
French Literature ..	1	15
German Literature ..	1	22
Local Government ..	1	14
Social Organisation ..	1	14
	8	192
University Preparatory		
English Literature ..	1	24
Law and the Citizen ..	1	20
	2	44
University Terminal		
Dramatic Appreciation	1	24
University Sessional		
Britain To-day ..	1	11
Government, Local ..	1	12
Human Geography ..	1	18
International Affairs ..	1	22
Literature, English ..	2	35
	6	98
Three-Year Tutorial		
Biology	1	25
Current Affairs ..	1	20
Dramatic Literature ..	1	23
Economics	10	175
International Politics..	1	20
International Relations	2	40
Literature ..	3	51
Music	4	70
Philosophy ..	2	34
Psychology	5	91
Psychology and Politics	1	17
Science	1	8
Sociology	1	20
Western Civilisation ..	1	20
	34	614

Subject	*No. of Courses*	*Membership*
W.E.A. One-Year		
Government, Local ..	1	16
International Relations	2	24
Philosophy	1	16
Physiology	1	15
Psychology	3	88
	8	159
W.E.A. Terminal		
Art	1	12
Art, Appreciation of ..	2	24
Biblical Literature ..	2	32
Biology	5	64
Britain and Europe ..	2	48
Drama	5	63
Economic History ..	1	18
Economics	3	46
Government, Local ..	2	24
History	1	17
History, Industrial ..	1	20
History, Welsh ..	1	16
International Relations	16	351
Literature, English	2	36
Literature, Welsh ..	1	12
Modern Problems ..	6	72
Music	2	26
Personalities in Drama	1	12
Philosophy	2	41
Problems in Central Europe ..	1	18
Psychology	8	175
Security in the Modern World	2	33
Social Ethics	1	20
	68	1180
Y.M.C.A. Short Terminals		
Art, Appreciation of ..	3	49
Astronomy	1	33
Biblical Literature ..	2	24
Biology	3	44
Central Europe and the Western Powers	2	46
Drama	4	57
Dressmaking ..	1	20
Economic History	1	15
Economics ..	2	24

Subject	No. of Courses	Membership
Y.M.C.A. Short Terminals—*continued*		
Government, Local ..	1	12
Health Insurance ..	2	30
History of West Monmouthshire	1	20
Human Nature and Society	1	20
Hygiene	1	12
International Relations	5	70
Literature, English ..	1	12
Nationalism in Europe	1	14
Politics, Modern ..	1	18
Psychology	3	58
Psychology and the Christian Faith ..	1	14
Religions of the World	1	10
Sociology	1	16
Unemployment Problems	4	48
Which Way to Peace ?	1	14
	44	680
E.S.A. One-Year		
Biology	1	11
Civilisation, Then and Now	1	12
French	1	20
French Literature ..	1	8
German Language and Literature	2	28
Literature	2	34
Music, Appreciation of	1	19
Psychology	1	14
Thinking and Writing	1	17
	11	163
E.S.A. Terminal		
Art, Appreciation of ..	1	13
Biology ..	1	18
Clear Thinking	1	12
Drama	1	23
German Literature	1	10
History, American	1	8
History, Local	1	18
Literature	3	39
Music, Appreciation of	1	13
Philosophy ..	1	8
	12	162
L.E.A. Junior		
Art	1	4
Cookery ..	1	33
Dramatic Training	4	118

Subject	No. of Courses	Membership
L.E.A. Junior—*continued*		
Dressmaking ..	2	19
French	1	12
Physical Training	10	340
Singing	1	56
Tailoring	1	21
Woodwork	3	111
	24	714
L.E.A. Senior		
Art	12	185
Brass Band Organisation and Conducting	1	20
Choir	2	45
Clay Modelling	1	20
Cookery ..	5	91
Country Pleasures	1	31
Current Events	2	49
Dancing, Ballet ..	2	40
Dancing, Folk	7	187
Dancing, Margaret Morris	1	20
Dancing, Rhythmic ..	2	39
Drama	6	150
Dramatic Training	3	85
Dressmaking ..	10	261
Embroidery ..	1	22
English Grammar	1	47
English Language	2	43
Esperanto ..	2	32
Fencing ..	1	20
Film, The ..	1	24
First Aid ..	10	329
French	27	791
German ..	35	1022
Glove-making	1	8
Handicrafts, unspecified	7	179
Hebrew	2	29
History ..	2	26
Home Nursing ..	6	166
International Relations	2	68
Italian ..	1	15
Leatherwork	1	17
Literature, American ..	1	10
Literature, English	3	67
Millinery ..	1	14
Mime	1	15
Music, Appreciation of	2	48
Music, Harmony ..	1	20
Music, Rudiments of ..	1	20
Nature	1	19
Needlework ..	2	41
Opera ..	3	115
Orchestra ..	4	102
Photography ..	5	88

DIAGRAM LII—*continued.*

Subject	No. of Courses	Membership
L.E.A. Senior—*continued*		
Physical Training and Keep Fit	23	572
Piano ..	11	118
Poetic Drama	1	8
Poetry ..	1	22
Pottery	1	12
Psychology ..	6	36
Public Speaking	2	72
Russian ..	2	32
Singing..	1	12
Spanish	2	27
Speech Defects, Treatment of	1	10
Speech Training ..	6	149
Tailoring ..	3	56
Travel Talks ..	2	48
Voice Production	2	35
Woodwork	9	266
	255	6095
Non-Grant-Earning Courses		
Art	3	33
Art, Appreciation of ..	2	17
Book-binding	1	6
Boot-repairing ..	2	12
Building Construction	1	20
Cabinet-making	1	4
Choir	11	282
Cookery	6	112
Dancing, Natural Movement..	1	11
Dancing, Folk and Country	10	248
Dietetics	1	6
Discussion Groups ..	11	108
Drama and Play Reading	24	171
Dressmaking ..	10	304
Economics ..	1	10
Embroidery ..	1	12
English Language ..	3	54
English Grammar ..	2	28
English for Foreigners	7	92
Esperanto ..	5	105
Far East ..	2	29
Non-Grant-Earning Courses—*continued*		
Fencing ..	1	25
First Aid ..	3	85
French	21	295
Furniture Repairs	2	13
Geography, Social	1	20
German ..	28	418
Glove-making ..	1	9
Government, Local	1	15
Greek	1	3
Handicrafts, unspecified	34	560
International Relations	2	42
Leatherwork ..	1	25
Local History ..	3	72
Literature	3	30
Mime	1	7
Motor Engineering ..	2	14
Music, Appreciation of	5	94
Opera	1	33
Orchestra ..	5	95
Pewter Work	1	13
Piano	1	40
Pipe Making and Playing	2	21
Photography	1	28
Physical Training and Keep Fit	32	655
Pottery	1	12
Poetry	2	17
Poster Design ..	2	17
Psychology	4	48
Public Speaking ..	1	17
Rug-making and Quilting	1	12
Russian	2	15
Singing.. ..	3	55
Science Study Circle ..	1	19
Shorthand ..	1	16
Spanish	3	35
Speech Training ..	5	79
Swimming	1	15
Welsh ..	4	40
Woodwork ..	3	30
World Affairs ..	2	62
	294	4765

CHAPTER XVIII

THE SCHOOL IN ACTION

THE preceding chapters have discussed the principles upon which administration should be based, and have dealt with various factors which have to be considered. The present chapter is an attempt to give the student a picture of various types of schools in action. The schools selected do not profess to be ideal or perfect schools. They are ordinary schools of the usual types—Infants' Schools, Junior Schools, and Senior Schools, selective and non-selective. In each case the Head Teacher was given the same questionnaire, and this is reproduced below in order that the procedure adopted may be understood. It will be noted that it commences with a statement of the aim of education which attempts to combine both the individual and collectivist sides of the problem. Sections 1 to 5 inclusive give the facts concerning the school, its type, children, staff, premises, and equipment. Section 6 gives the formal organisation of the school into classes, and the methods adopted to carry this out in the first place and then to prevent it from becoming rigid. Sections 7 and 8 ask for a statement of factors advantageous or detrimental to the achievement of the aim, and the following two sections for methods devised to use the first group and overcome the second. The final section is self-explanatory.

It is not proposed to discuss the answers given by the various Head Teachers. This is left as an exercise to the readers of this volume. It is suggested, however, that this crystallisation of the school enables a survey to be made of its efficiency in promoting the purpose for which it was established. The educator cannot afford to be in the position of the man who said, "I cannot get lost because I am not going anywhere."

The answers are given practically as received. In one or two cases some curtailment has been necessary, and in others some re-arrangement of the matter. But in the main the replies are printed as received.

THE QUESTIONNAIRE AS ISSUED

Let us assume that the object of the whole educative process is so to stimulate and develop the potentialities of the child and adolescent that he acquires modes of activity and skills which at one and the same time make

his life as an individual richer and happier and his life as a willing member of a democratic state of real service to his community.

How far does your school in action serve the purpose of an institution set up to fulfil the function stated above ?

1. *Type of School* :—
2. *Scholars.*
   (*a*) Average attendance: (*e*) Mental ability:
   (*b*) Age range: (*f*) Physical state:
   (*c*) Length of course: (*g*) Any other information:
   (*d*) Main occupations of parents:
3. *Staff.* Give numbers, sex and any special qualifications:
4. *The School.*
   (*a*) Number of classrooms: (*c*) Special rooms—state purpose of these:
   (*b*) Central Hall: (*d*) Playground and playing field facilities:
5. *Equipment.*
   (*a*) Type of general equipment:
   (*b*) Special equipment:
   (1) Science: (2) Crafts: (3) Projector: (4) Radio:
6. *Organisation.*
   (*a*) Streams: (*b*) Classes:
   (*c*) How are children originally grouped:
   (1) School Reports. (2) Intelligence Tests. (3) Examinations.
   (*d*) What revisions of the original groups are made and on what basis;
7. *Factors favourable to achievement of aim:*
   (*a*), (*b*) and (*c*).
8. *Obstacles to achievement of aim:*
   (*a*), (*b*) and (*c*).
9. *Use made of No. 7.*
10. *Steps taken to overcome No.* 8.
11. Describe in general terms what part in the achievement of the general aim can be played by your school, what steps you take towards the achievement of the aim and to what degree you are successful and what is necessary in order to increase your chances of success. In other words, give a snapshot of your " school in action."

SCHOOL A1—INFANTS' SCHOOL

1. TYPE OF SCHOOL.—Infants.

2. SCHOLARS.—(*a*) *Average attendance:* 200. (*b*) *Age range:* 4-7 years. (*c*) *Length of course:* 2-3 years. (*d*) *Main occupations of parents:* Engineering, cardboard box manufacturing, and textiles. (*e*) *Mental ability:* Average. (*f*) *Physical state:* Good.

3. STAFF.—*Give numbers, sex, and any special qualifications:* 5 + 1 Nursery Minder—all female. Two members very musical. One particularly interested in writing original plays suitable for young children.

4. THE SCHOOL.—(*a*) *Number of classrooms:* 5 (includes 1 Nursery Classroom). (*b*) *Central Hall:* Yes. (*c*) *Playground and playing field facilities:* Good playground marked for games. Large lawn with well planted shrubbery and large lily pond with borders. Lessons on lawn whenever possible with waterproof cushions for children. Recreative games and lessons on lawn.

5. EQUIPMENT.—(*a*) *Type of general equipment:* Dual tables and chairs, dual desks, beds (tubular frames). (*b*) *Special equipment:* None of a *special* character.

6. ORGANISATION.—(*a*) *Streams:* 1 stream to 5+; two subsequently. (*b*) *Classes:* Nursery, Class 3, Class 2, Class 1 (two divisions). (*c*) *How are children originally grouped:* Nursery Class observation work or observation during first six months of school life.

7. FACTORS FAVOURABLE TO ACHIEVEMENT OF AIM.—(*a*) Well equipped modern school—plenty of facilities for indoor and outdoor activities.

(*b*) Keen staff interested in each individual child. Always a friendly atmosphere. Children always anxious to please.

(*c*) Plenty of scope in every lesson for free expression.

8. OBSTACLES TO ACHIEVEMENT OF AIM.—(*a*) Inability to keep children longer who, on account of age, have only two years in Infant School.

(*b*) Lack of accommodation at lower end of school which would allow for Class 3 to be smaller from Christmas to Midsummer.

9. USE MADE OF NO. 7.—(*a*) Games outside morning and afternoon when suitable. Nursery children sleep outside.

(*b*) Teachers visit other classrooms frequently to see formal and recreative work done.

10. STEPS TAKEN TO OVERCOME NO. 8.—(*a*) Advising parents who do not wish children to start before 5 years to let them come at 4 years 9 months so that settling down period can be got over by 5 years and all work taken easily.

(*b*) Promotion from Class 3 into Class 2, and Class 2 into Class 1 at Easter. Children still work at own rate irrespective of what rest of class is doing.

11. "SCHOOL IN ACTION."—Perfect freedom in speech and the right to question, argue, ask for advice or talk about anything belonging to school, home, etc. Choice in as many lessons as possible. Stories, plays, songs, cards for English work; choice of colours in wools and felts used in handwork; choice of what to

make. All art work is free—no attempt made to teach this subject. Plenty of activity work; every child given chances in dramatic work. Parents invited at least four times a year to see work and play. Always games and dances taken which will allow every child to take part. The education given is individual in many aspects, but the social side is watched and opportunities found for developing good speech and courteous manners. The children are encouraged to be natural without being pert.

SCHOOL A2—INFANTS' SCHOOL

1. Type of School.—Infants', with Nursery Class.

2. Scholars.—(*a*) *Average attendance:* 197. (*b*) *Age range:* 4-7 years. (*c*) *Length of course:* 2 years. (*d*) *Main occupations of parents:* Manufacture of boxes; miners; labourers. (*e*) *Mental ability:* 50 per cent. good average ability, 50 per cent. slightly below. (*f*) *Physical state:* 50 per cent. good, 50 per cent. below average due to malnourishment, lack of sleep, poor and ill-managed homes.

3. Staff.—*Give numbers, sex, and any special qualifications:* Head Teacher and six women teachers plus Nursery Minder. Two teachers with good musical ability. Four with good experience in the teaching of young children.

4. The School.—(*a*) *Number of classrooms:* 8 (includes Nursery Classroom). (*b*) *Central Hall:* —. (*c*) *Special rooms—state purpose of these:* Rest Room; large room for singing, games, etc. (*d*) *Playground and playing field facilities:* Large playground and playing field.

5. Equipment.—(*a*) *Type of general equipment:* Modern furniture (tables and chairs) in two classrooms, dual desks in others. (*b*) *Special equipment:* —.

6. Organisation.—(*a*) *Streams:* First year—one stream; second year—two streams. (*b*) *Classes:* 6. (*c*) *How are children originally grouped:* On admittance the children under 5 years are put in Nursery Class; those of 5 and over in entrants' class. (*d*) *What revisions of the original groups are made and on what basis:* At the end of the first year the children are graded according to their ability—mental tests are given to children whose grade is not clear, or is doubtful.

7. Factors Favourable to Achievement of Aim.—(*a*) Good staff who have interests of children at heart,

(*b*) Individual treatment of children.

(*c*) Scope given in time-table for free and friendly co-operation.

8. Obstacles to Achievement of Aim.—(*a*) Poor and unattractive homes of many of the children.

(*b*) Malnourishment and inadequate clothing, and lack of sleep.

9. Use Made of No. 7.—Free and elastic time-table to give the staff opportunities for experimenting.

10. Steps Taken to Overcome No. 8.—Full use made of Free Milk Scheme. Special note taken of footwear of children in winter—good use made of Boot Fund.

11. "School in Action."—During the time spent in school—two years for the majority of children, and 2 years plus for those who receive a Nursery training, the children are trained to be self-reliant and independent. Individual attention is given especially to the retarded children with the purpose of fostering confidence, and inspiring them with the wish to do well. The children are made happy, busy and friendly. It has been said, "The school is made a happy and valuable experience for all."

The chances of success could be considerably increased if the physical condition of the children could be improved.

Lethargy caused by mal-nourishment and lack of sleep is apparent, and until this is overcome full advantage of the training cannot be secured.

SCHOOL B1—JUNIOR SCHOOL

1. Type of School.—Junior Mixed.

2. Scholars.—(*a*) *Average attendance:* 350. (*b*) *Age range:* 7-11 (actually 6·9 to 11·9). (*c*) *Length of course:* 4 years. (*d*) *Main occupations of parents:* Very varied; 18 per cent. coal-miners; 20 per cent. iron and steel workers. (*e*) *Mental ability:* Wide range; I.Q. from 130 to 60. (*f*) *Physical state:* Usually quite good. A few cases (20) of undernourishment. (*g*) *Any other information:* —.

3. Staff.—*Give numbers, sex, and any special qualifications:* 1 Headmaster, B.Sc. (Hons.). 5 Male Assistants. All Certificated. 2 with B.Sc. 5 Female Assistants. 4 Certificated. 1 with L.R.A.M.

4. The School.—(*a*) *Number of classrooms:* 11 (13 in the building). (*b*) *Central Hall:* 1. (*c*) *Special rooms—state purpose of these:* 2 of the classrooms have tables and chairs and are

used mainly for Handwork and Needlework. (*d*) *Playground and playing field facilities:* 2 reasonably sized playgrounds. 1 small playing field previous to being taken for shelter trenches.

5. EQUIPMENT.—(*a*) *Type of general equipment:* 9 classrooms with dual desks; 2 with tables and chairs. (*b*) *Special equipment:* 1 radio receiver.

6. ORGANISATION.—(*a*) *Streams:* Three. (*b*) *Classes:* Ten. (*c*) *How are children originally grouped:* (1) School Reports: Yes. (2) Intelligence Tests: No. (3) Examinations: Yes, in Infants' School. (*d*) *What revisions of the original groups are made and on what basis:* Revisions made half-yearly, usually on results of half-yearly examinations generally.

7. FACTORS FAVOURABLE TO ACHIEVEMENT OF AIM.—(*a*) Majority of children would far sooner be at school than elsewhere.

(*b*) Staff generally efficient.

8. OBSTACLES TO ACHIEVEMENT OF AIM.—Staff inclined to be unwilling to experiment—due to conservatism ?

9. USE MADE OF NO. 7.—.

10. STEPS TAKEN TO OVERCOME NO. 8.—Gentle persuasion that suggested method is desirable.

11. " SCHOOL IN ACTION."—Generally, this school has as its aim: (*a*) The formation of good habits of speech and expression. (*b*) A fair mastery of the mother tongue, being able to read with understanding and write intelligibly. (*c*) The foundation of mathematical knowledge and processes. (*d*) Some definite knowledge of outstanding events and personages of history. (*e*) Some definite knowledge of other lands and peoples. (*f*) A certain amount of exact scientific knowledge. (*g*) Some ability in drawing and in certain crafts.

SCHOOL B2—JUNIOR SCHOOL

1. TYPE OF SCHOOL.—Junior Mixed.

2. SCHOLARS.—(*a*) *Average attendance:* 220. (*b*) *Age range:* 6 yrs. 9 months to 10 yrs. 9 months. (*c*) *Length of course:* 4 years. (*d*) *Main occupations of parents:* Manual workers. (*e*) *Mental ability:* Generally speaking no intellectual background; 3R work has to be made very interesting to awaken satisfactory response. (*f*) *Physical state:* Strong, with good constitutions. (*g*) *Any other information:* —.

3. STAFF.—*Give numbers, sex, and any special qualifications:* 5 women teachers; 3 trained, 2 untrained, plus Head Teacher.

4. THE SCHOOL.—(*a*) *Number of classrooms:* 5. (*b*) *Central Hall:* 2 extra rooms which have been combined. (*c*) *Special rooms—state purpose of these:* 1 strengthened for shelter. (*d*) *Playground and playing field facilities:* large playground with shrubbery, forms an excellent background in fine weather for country dancing, etc.

5. EQUIPMENT.—(*a*) *Type of general equipment:* Everything really necessary; modern books, ample stationery, maps, etc. (*b*) *Special equipment:* (1) Paper, cardboard, adhesive paper (silhouette), and raffia. (2) Radiogram—used with records for dancing and for broadcast talks, etc. (3) Sewing machine. (4) Duplicator for maps, programmes, etc. (5) Epidiascope—geography.

6. ORGANISATION.—(*a*) *Streams:* Three streams in each class, except in top classes. (*b*) *Classes:* Classes I, II, III, IV*b*, IV*a*. (*c*) *How are children originally grouped:* (1) On School Reports plus teachers' opinions and Head's opinion. (2) Intelligence Tests—border line and difficult cases referred to Psychologist. (*d*) *What revisions of the original groups are made and on what basis:* Those with special aptitudes are placed where they can derive most benefit. The salient points in all subjects are taught to all three streams, hence a pupil can easily be transferred to another stream. The " A " stream consists of pupils excelling in 3R work.

7. FACTORS FAVOURABLE TO ACHIEVEMENT OF AIM.—(*a*) Parents take an interest in the school and its activities and are willing helpers. (*b*) The school building is modern and gives ample facilities for the mental and physical training of the children. (*c*) School journeys, visits to Musical and Dance Festivals have given the children a wider outlook, better manners and consideration for others, and self-confidence.

8. OBSTACLES TO ACHIEVEMENT OF AIM.—(*a*) Children often go to bed late—hence tired next day; this is getting remedied. (*b*) Home environment is not too good in many cases. (*c*) New entrants are seldom well-mannered or well-spoken—lack the freedom of the pupils here.

9. USE MADE OF NO. 7.—The parents send old clothes which have been renovated and made (with teachers' help) into character costumes for our plays. Visits outside school have brought children into contact with outside world; parents are *always* welcome visitors and are allowed to help us.

10. Steps Taken to Overcome No. 8.—(*a*) Parents are interviewed and generally an improvement is quickly apparent. (*b*) Teachers take interest in children's out of school activities.

11. "School in Action."—We aim at making the pupils absolutely fearless; we help the children to acquire the happiness which comes from within by (*a*) inculcating self-respect (no dirty boots, collars, necks, ears, etc,); (*b*) training in good manners; (*c*) giving self-confidence; (*d*) considering the feelings of others. In short, we try to give them assets regarding character and training which will enable them to acquit themselves well during their whole lives. Competing at Festivals has made good losers, visits to Museums have proved their good behaviour is splendid; meals (picnic and restaurant) have shown excellent manners. We realise our work is successful for the children are so happy they do *not* wish to leave; after they have left they revisit and help us, viz. with Festival work, Christmas parties, making costumes, etc., for school use. We are constantly receiving messages from old scholars—often regarding their successes. To increase our chances of success World Peace is necessary—for the nations to live in harmony as our scholars do in school.

SCHOOL B3—JUNIOR SCHOOL

1. Type of School.—Junior Girls.

2. Scholars.—(*a*) *Average attendance:* 210. (*b*) *Age range:* 6 yrs. 9 months + to 11 yrs. 9 months +. (*c*) *Length of course:* 4 years +. (*d*) *Main occupations of parents:* (1) Miners; (2) Labourers at Iron Works. (*e*) *Mental ability:* Average. (*f*) *Physical state:* Good. (*g*) *Any other information:* —.

3. Staff.—*Give numbers, sex, and any special qualifications:* 6 women; 4 trained, 2 untrained plus Head Teacher. 2 specially qualified in physical training and 1 in music.

4. The School.—(*a*) *Number of classrooms:* 7. (*b*) *Central Hall:* —. (*c*) *Special rooms—state purpose of these:* —. (*d*) *Playground and playing field facilities:* Small playground; large playing field.

5. Equipment.—(*a*) *Type of general equipment:* Liberal allowance for good books, etc. Well equipped; all modern furniture. Locker desks in 4 rooms; dual desks (not lockers) in 2 rooms. Wall blackboards. (*b*) *Special equipment:* 1 "Pye" radio.

6. Organisation.—(*a*) *Streams:* Owing to declining numbers "streams" only now at the bottom and top of school—2 streams

in each case. (*b*) *Classes:* 3 (II, III, and IV). (*c*) *How are children originally grouped:* (1) School Reports: Yes. (2) Intelligence Tests: Yes. (3) Examinations: —. (*d*) *What revisions of the original groups are made and on what basis:* The lowest streams come from two different Infants' Schools. In a month's time there is evidence of the distinct division—those for " A " and those for " B." They are then re-grouped as the " A " children can travel quicker.

7. FACTORS FAVOURABLE TO ACHIEVEMENT OF AIM.—(*a*) Loyal staff, interested in everything to do with their children. (*b*) The interested staff creates an interested parent, and therefore—(*c*) A friendly child who gives no trouble and so " a happy atmosphere throughout."

8. OBSTACLES TO ACHIEVEMENT OF AIM.—(*a*) The greatest obstacle to our work in the district is the very bad way in which the people speak. (*b*) It is a rough and ready type of living, there is little or no culture. (*c*) The girls have not those advantages of being taken out by parents and having places pointed out to them, etc. They are narrowed in their environment.

9. USE MADE OF NO. 7.—Friendly " good-morning " and a few words to the parents on the way serves its purpose. To be " eyebrow " no use here.

10. STEPS TAKEN TO OVERCOME NO. 8.—Girls encouraged to read, making a point of gaining interest in the Children's Library, to try to counteract that narrowness of environment which means here a limited outlook.

11. " SCHOOL IN ACTION."—A school undismayed by difficulties. Our maxim: " God helps those who help themselves." We were sadly lacking a school hall—nowhere for plays, physical training and dancing on wet days—a hindrance to the lighter side of the curriculum. Declining numbers gave us an empty room and this we turned into a hall. Our caretaker, always interested and willing, erected for us a permanent stage from the tops of long desks—now disused—our only expense a few shillings for supports for underneath. Stage complete with scenery supplied by one of the staff is a great asset to our school and a surprise to many as to what can be done.

Length of Junior course allows time for a good foundation to be laid for the Senior Schools. One thing I would like—less of the " watertight compartment " between Infants and Juniors, when separate departments. I have in mind a child in an Infant Depart-

ment at the present time—a big girl, with natural ability, who wants lots to do—a child who would benefit greatly if she could go further, but the watertight compartment says " no," not until the end of summer term. I feel this an injustice to a child in these circumstances. In a combined Infant and Junior School this does not happen, the child progresses when fit.

Physical condition—good; bonny girls, mostly well built and well fed. This is a feature of the district—shopkeepers tell you the people will have goods—irrespective of whether in bad times they pay for them or not. Certainly the girls are fit—our attendance is a proof of this.

The Clothing Club, so long a feature of the district, does serve a real need. The girls in the autumn are well clad in preparation for the winter. Wellingtons, macs, good shoes much in evidence. This serves again to encourage thrift, as these goods are all paid for in advance plus one penny for every shilling spent given to them by the shopkeepers.

As a school the girls are encouraged to play their part in everything as it comes along—whether sport, or other events open to the children. We may not achieve " top place," but with Longfellow we say, " Something attempted, something done."

Thus I think as a school we play a good part in the battle of life by (*a*) Helping ourselves. (*b*) Looking for anything which appears to us as an injustice to the child. (*c*) Keeping our eye on the physical condition of the child. (*d*) Encouraging thrift, and at the same time helping the parents to prepare for the winter by way of warm clothing. (*e*) Last, but not least, encouraging the girls to play their part as actors on the stage of life.

SCHOOL B4—JUNIOR SCHOOL

1. Type of School.—Junior Boys.

2. Scholars.—(*a*) *Average attendance:* 1936-37 232·7/259; 1937-38 240/261; 1938-39 236/255; 1939-40 219/234. (*b*) *Age range:* 7 yrs. 9 months to 11 yrs. 9 months. (*c*) *Length of course:* 4 years. (*d*) *Main occupations of parents:* (1) Labourers—50 per cent. (includes furnacemen, factory hands, unskilled machinists, etc. (2) Skilled manual workers—40 per cent. (includes glass workers, bricklayers, blacksmiths, electricians), 25 per cent. of these colliers. (3) Sedentary occupations—5 per cent. (includes shop assistants, insurance agents, clerks, etc. (4) Army and Navy—5 per cent. (5) Unemployed out of above: 6 men. (*e*) *Mental ability:* Of 56 boys tested in Group 1 (10·9-11·9) the median was

94 and the upper quartile 104. The median for the Borough in this group was 103. (*f*) *Physical state:* (1) Undernourished and receiving free milk—2 boys. (2) Children with sores and minor complaints visit the school clinic. (3) Advice is given by school nurse weekly, and a complete inspection is carried out quarterly by school nurse. Also dental and medical inspections. Statistics prepared regarding height and weight. (*g*) *Other information:* The boys are generally enthusiastic for school work, so much so that the percentage of attendance is around 94 per cent. During my time here the following factors have been mainly responsible for non-attendance of scholars:—(1) Various childish complaints. (2) Use of children for home duties in school time. (3) Infectious disease and contacts. Generally I have found the children resent being kept at home on account of (2).

3. STAFF.—*Give numbers, sex, and any special qualifications:* (*a*) Headmaster and seven certificated teachers. (*b*) Four men. One Hons. B.A. Sheffield (English, French), one Final City and Guilds of London Institute (Woodwork), one B.Sc. Sheffield. (*c*) Three women. One B.A. Dual Hons. Latin and French (Sheffield).

4. THE SCHOOL.—(*a*) *Number of classrooms:* 7. (*b*) *Central Hall:* Yes. (*c*) *Special rooms:* Two classrooms equipped as special rooms. The Central Hall serves the purpose of (1) Assembly and Prayers. (2) Physical Training in inclement weather—for which a special time-table has been prepared. (3) Music and musical appreciation. (4) Light woodwork. (5) Listening to wireless. (6) Drama and drama production. Of the two special rooms one is fitted for an Art room, the other as a Handicraft room. (1) Art room: This room is used most afternoons in the week for art only, and houses all materials used in this subject, including paint, pastels, paper, paint pots, etc. There are 20 scholars' dual seating tables in this room with the appropriate number of chairs. (2) Handicraft room: Tables as in art room. Houses all cover papers, boards, scissors, knives, guillotines, presses, book-binding frames, stick printing materials, etc. Two long folding tables can be erected in this room when necessary. This room is used only by the senior classes of the school, 4*a*, 4*b*, 3*a*. Activities in other classes are carried out in the children's own classrooms. (*d*) *Playground and playing field facilities:* The playground surrounding the school is of small space, and the asphalt is in poor condition (total space approx. 1800 sq. yds.). It is the only (outdoor) available space for physical activities including Physical Training in winter time. In summer time ample space is at the disposal of the school

in the form of a playing field attached to the school flower garden and playground. The playing field is large enough for a fair sized football pitch. This space has been decreased by the erection of air raid shelters, which, although underground, have spoilt about one quarter of the available playing space. It might also be mentioned here, that 220 sq. yds. have this year been turned into a school garden—growing potatoes, cabbages, root crops, etc.

5. EQUIPMENT.—(*a*) *Type of general equipment:* (1) In four classrooms, old dual desks, which I believe are to be replaced by dual seating tables and chairs; these are found in the other three classrooms. (2) Teachers' tables or desks in each room. (3) Good cupboard accommodation in each classroom for textbooks and stationery. There is a lack, however, of central accommodation for new school stock, one small cupboard being provided. A stock room is essential, and could probably be built over the school cloak-room. (4) One blackboard is provided in each classroom. (Two rooms with blackboard on stands, and the other five with blackboard and easel.) Four rooms have a certain amount of wall blackboard space but each room could do with a minimum of two blackboards, preferably, the "blackboard on stand" type. (5) Efficient cross ventilation has been arranged in all rooms by (*a*) a row, or rows of windows along the top, hung in the centre, and opening vertically, (*b*) a row or rows of centre hung windows opening vertically and at the bottom, hopper windows which only allow an upward movement of air into the room. (6) The school is centrally heated by a coke fed boiler which proved itself reasonably efficient during the last severe winter. One objection here is that enough storage room for coke and coal has not been allowed, in severe weather less than one week's supply can be kept in store. (7) Natural lighting is efficient in all rooms, whilst artificial light by electricity is quite satisfactory. (8) Cloakroom arrangements are such that each child has his own peg; the cloakroom is well heated and ventilated, so that in wet weather the children's clothes are generally dry before they are needed again. Ten pedestal closets are provided in a separate building away from the school, each closet has its own flushing arrangements. About 20 ft. of urinal is provided, this is in bad state, the wall surface being in great need of re-treatment. (9) A Headmaster's room with suitable furnishings, and a staff room with cloakroom accommodation and wash-bowl form a very necessary adjunct to the equipment of the school. (*b*) *Special equipment:* (1) Nature study: school pond and garden equipped with water plants, fish, etc. School flower garden. School vegetable garden. Equipment includes spades, forks, rakes, trowels, mowing machine,

etc. (2) Woodwork: equipment includes planes, saws, trestle tables (four used for this work), fret-saws, hammers, etc. The wood used is generally three-ply wood and various sized strip-wood. (3) Handicraft: this equipment is detailed under heading " Special rooms." (4) Radio: a second-hand Phillip's radio bought out of school funds last year.

6. ORGANISATION.—(*a*) *Streams:* May be classed generally as a two-stream school. (1) First year—" A " and " B " streams with 31 and 22 children respectively. (2) Second year—an " A " stream, but a Remove class made up of two age groups. This means that the weaker boys spend two years in the same class, although to offset this the class is divided into two sections with a scheme of work spread over two years. In the " A " stream there are 27 boys, and in Remove 32 boys. (3) Third year—an " A " stream with 40 boys. (4) Fourth year—" A " and " B " streams with 32 and 36 children respectively. (*b*) *Classes:* Classes are divided into groups and sections throughout the school for various subjects according to the teacher's discretion. (*c*) *Original grouping:* (1) From information on Record Cards brought from the Infant School. (2) From Dartington Scale O.I.T. (3) From Ballard One Minute Addition Test. (4) From Ballard One Minute Subtraction Test. (5) From Ballard One Minute Reading Test. (*d*) *Revisions of original groups:* These revisions are made as follows:—(1) As a result of teachers' monthly tests. (2) Results of Attainment Tests. (3) Results of special Intelligence Tests administered by Headmaster to check up I.Q. already given. These revisions are made at specially called staff meetings twice a year. *Note:* At the beginning of the fourth year a further Intelligence Test is given (Cattell Scale 1). Attainment Tests are given twice yearly in Arithmetic, English and Spelling.

7. FACTORS FAVOURABLE TO THE ACHIEVEMENT OF AIM.—(*a*) A certain atmosphere of freedom and informality introduced into the working of the school, and in the handling of the time-table. (*b*) The constant encouragement provided by the natural energy and enthusiasm of the child, and his eagerness to learn anything that is new and presented in an interesting way. (*c*) The very willing co-operation of (at present) a minority of parents in the activities of the school and the formation of a Parent-Teacher Association with the following aims:—(1) Closer co-operation of parents with school and staff. (2) To give parents a better idea of what their children do in school, to break down the barrier between school and parents, and give the lie to the idea that parents should not be seen

on school property during school hours. (3) To give some idea of the broader aspects of education carried on in the area, including remedial work in all its aspects, *e.g.* school clinics. (4) To encourage parents to give the right type of assistance to the work carried on in the school, and so carry on the work of the school in the home. (5) To encourage parents to come to school to listen to talks on subjects of topical interest, *e.g.* a talk given recently on " The intimate reactions of the speaker's visit to France, her stay in France and the life in a French village." (*d*) The promotion of school camps. (*e*) The encouragement of activities which widen the child's experience, *e.g.* visits to places of interest, etc., leading a child to a greater sense of responsibility than would a narrow observance of the formalised time-table. (*f*) The formation of clubs in school. (*g*) The formation of a school choir. (*h*) The detailing of certain responsibilities to those who show a sense of leadership and the promotion of a government from within. (*i*) The passing on to the whole school of the fact that the beauty of the garden and the cleanliness of the school is in the hands of the individual, and should be jealously guarded against all ill-treatment.

8. Obstacles to Achievement of Aim.—(*a*) Large classes, necessitating insufficient individual attention and at times a strictly authoritarian attitude on the part of the teacher. (*b*) Lack of materials, especially since the war involved further economy. (*c*) The counteracting influence of many homes on the attitude to life which the teacher attempts to instil into the children, and the completely uninterested attitude of many parents to the work, aims, and ideals of the school. (*d*) The fact that the school has not four complete " A " and " B " streams in separate class rooms. (*e*) Some diversity of opinions among the staff on teaching methods, methods of examination, etc. (*f*) The poor attendance of some of the weaker members of the school mainly due to trivial reasons.

9. Use Made of No. 7.—(*a*) An attempt is made to direct the energy of the child into useful and enjoyable channels. The ideal aimed at is never to let any enthusiasm be suppressed or wasted. (*b*) The comparative freedom of the handling of the time-table is appreciated by the staff, full use is made of this freedom when it is found necessary to do so. A full afternoon is devoted to a visit instead of the visit being confined to an activity period. Wireless broadcasts are taken at the published times and the teacher arranges for the time taken up to be given back to the subject which has suffered. (*c*) The willing co-operation of parents has been organised into the form of a Parent-Teacher Association and it is

hoped to increase this minority into a majority by arranging talks, exhibitions of work, plays, social evenings, etc., at regular intervals. (*d*) A visit for a week to Llanfairfechan had been arranged this year, but was unavoidably postponed owing to the war. (*e*) Visits to places of interest are organised in and out of school time. (*f*) The Drama Club is in active production of a play "The Reluctant Dragon." The whole of this play has been produced out of school time. From time to time the members of this club pay visits to the Theatre and Cinema. The Stamp Club and Puppetry Club, also the Meccano Club meet weekly in their season. A Reading Club has been running for some weeks, a number of books have been obtained from the Borough Library, and these are borrowed by boys as required. The Art Club was formed to foster an appreciation of all branches of Art. Its members are encouraged to see good pictures and works of art and practise various arts and crafts. At present they are co-operating with the Drama Club and painting the scenery for the Club's production. Every few weeks sketching expeditions are held—the function of these is both artistic and social. It is hoped to train the children in habits of accurate observation, to foster in the children a love of the countryside, and to break down the barriers between scholar and teacher. The School Choir is drawn from among the top classes of the school and has an extended repertoire of songs. (*g*) School monitors accept various responsibilities—collection of registers, care of special garden plants which require daily attention, selling of biscuits, the keeping of school time at play times and the beginning and ending of school sessions, then there is the National Savings Club monitor who visits the Post Office for the Headmaster, etc.

10. Steps Taken to Overcome No. 8.—(*a*) It is impossible, at present, to reduce the size of the classes, but the "B" classes have been kept as small as possible in order to give the teacher more facility for group and individual work in these classes. (Group work, of course, helps to overcome the obstacle of large numbers in all classes.) It is obvious that the avoiding of the purely authoritarian attitude depends upon the personality of the teacher, and also upon how much of his energy and initiative he is willing to subscribe, to his class, to his preparation of work, and to his general teaching. (*b*) Materials such as scrap cardboard, samples of wall paper, tea chests, ground clay, etc., have been used to replace the materials generally used. (*c*) The Parent-Teacher Association was formed with a view to overcoming this difficulty. (*d*) Systematic application of work, through the energy of the teacher, has helped in no small measure. The ideal solution, of course, would be the

addition of another teacher to the staff. (*e*) To overcome this difficulty staff meetings have been held and various methods have been discussed. Proof has been obtained of certain methods of teaching, and results of attainment tests have proved their own value over the old system of examination. (*f*) The usual official procedure has been adopted, added to which the Headmaster insists that it is polite for the parent to inform teachers, by note, of the reason for a child's absence.

II. "SCHOOL IN ACTION."—Division of the time-table into two groups. The more definite instruction in the root subjects, English and Arithmetic, is given in the morning. The object in these two subjects is for children to reach the norms usual for children of a similar age and intelligence. An attempt is made to work on individual or group lines, and the syllabus is designed in Arithmetic, not only to set a standard to be reached, but in the "B" streams to check any attempt to proceed too soon to more difficult work before the basic number combinations have been mastered.

The afternoons are devoted to various forms of activities—where the emphasis is on children doing something for themselves rather than on the teacher giving information. In the lower school these activities are connected with Drama, Geography, History, Nature Study and Art and Craft. In the upper, classes on Bookbinding, Art and Craft, Woodwork, Gardening, Drama and Drama Production. The difficulty with regard to activities is the lack of room in somewhat old school buildings. This difficulty is overcome by the use of the larger rooms for the lessons needing more movement, *e.g.* Art and Craft rooms. Drama lessons take place in the Hall and screens are used to overcome the lack of a stage which is so essential for drama production.

Great use has been made during the past year of the wireless for musical appreciation, singing together, travel talks, History, Nature Study, etc. Here a wireless set centrally situated with loud speaker units in each room would be a great help.

In History real help has been given in the following ways:—(*a*) Through dramatisation, and because the actors are unseen, the children are listening to "real" people; through their vivid imagination the children visualise scenes of the past and live the part with the players. (*b*) Children have been able, through a study of the past, to see why present-day things are occurring. (*c*) Because of (*a*) particularly, the knowledge gained has been greater.

In Music: (*a*) Light and shade has been added to the singing. (*b*) A huge repertoire has been built up—a repertoire which the children like. (*c*) Children have been able to copy good samples

(with and without orchestra). (*d*) Altogether singing has become more enjoyable.

The above should help to build up for children, in their life after school, a love for the better types of music and provide a subject for a certain amount of their leisure time.

While I have been in the school I have been particularly impressed by the need for work in small doses rather than in long draughts. Children, especially in the lower classes, have not been asked, or expected to continue with the same types of work for longer than their interest and physical state could stand, even in subjects like gardening. The occupations have been changed from time to time during the period to ensure interest to the full. Again, long periods of written Arithmetic and English exercises have been discouraged. For a boy to work for a whole three quarters of an hour simply "doing sums" is to spoil all interest and enthusiasm for the subject. Instead of this, shorter periods in the lower school are used for oral work—the written periods gradually being extended up to the top classes.

Correct speech, through definite speech training periods as well as the incidental teaching of good English during the whole time spent in school, fights a severe battle against the slang and slipshod language of the street and home. The extent to which the good speech taught in school prevails depends, of course, entirely on the child's immediate home influence and the nature and extent of his leisure hours, which again we are trying to improve by our clubs and societies in school.

Naturally the Art and Craft side of school work is limited because of technical difficulties, but the attainments of children within our age groups have been closely studied, and whilst children are expected to work to standard requirements, allowance is made for low intelligence, etc. This is done by scientific study of the individual child, and where necessary, probes are made to find out his capabilities. Thus praise can be given for the individual's best work in proportion to his powers of effort and attainment. This, I feel, leads to maximum effort in all classes in the school.

The drab and uninspiring surroundings of the school have been partially overcome by the making of a school flower garden, whilst particularly in summer, walks into the country have done much to foster in the children a more sympathetic attitude to what is beautiful.

Besides taking every opportunity, in school time, to get into intimate contact with the child, certain younger members of the staff have organised certain expeditions out of school time—visits to the theatre, to the pictures, Saturday afternoon walks into the

country, with a view to the painting of pictures, drama production in the open, etc. These activities in themselves have led to open, lively and spontaneous contact between pupil and teacher, and reflections of these activities have been noticed to good effect inside the school.

SCHOOL C1—SENIOR BOYS' NON-SELECTIVE SCHOOL

1. TYPE OF SCHOOL.—Senior Boys' Non-Selective.

2. SCHOLARS.—(*a*) *Average attendance:* 295. (*b*) *Age range:* 10 yrs. 9 months to 14 yrs. 3 months plus extra year. (*c*) *Length of course:* 3 years plus extra year. (*d*) *Main occupations of parents:* Artisan class—iron and steel workers, labourers, miners, etc. (*e*) *Mental ability:* Average—intelligent rather than intellectual. "A" classification 30 per cent., "B" classification 50 per cent., "C" classification 20 per cent. Varies considerably, especially in "C" classes, from weak to very poor. (*f*) *Physical state:* Average; wiry; not a robust type of boy. (*g*) *Other information:* Home conditions are below standard generally, thus the environment of most pupils is not good. Meals are often haphazard and unsuitable, and in many cases are insufficient. Rest is often inadequate owing to late hours kept at home. Many boys are employed as news-boys and errand-boys. Footwear often very poor.

3. STAFF.—*Give numbers, sex, and any special qualifications:* Headmaster plus 12 assistants, all male. Ten assistants trained certificated; one graduate M.A., Inter. B.Sc. (Econ.), one graduate Music—L.L.C.M., one graduate Handicraft—M.Coll.H., one Inter. B.A. and Secretary to the Historical Association, one geography specialist with world wide experience in Merchant Service, one assistant C.U. and one U.M. Several are qualified for craft work.

4. THE SCHOOL.—(*a*) *No. of classrooms:* 8. (*b*) *Gymnasium Hall:* Fully equipped stage and projector room, 3 dressing rooms, showers. (*c*) *Special rooms:* Art room with special desks. Craft room for bookcrafts and light crafts. Workshop for wood and metalwork including forgework in charge of two masters. (*d*) *Playground:* Large smooth asphalt playground in good condition, much appreciated by scholars especially for cricket practice. *Playing field:* Includes two football pitches. Unfortunately this is ten minutes' walk from school but full use is made of it. Part of the field has been dug up for food production and allotments, but the playing pitches have not been touched.

5. Equipment.—(*a*) *Type of general equipment:* Dual desks in all rooms. Very few wall boards. Good cupboards. English, Geography and History rooms; Music and Mathematics rooms well equipped with books and special apparatus. There is a fully equipped workbench in three rooms, apart from craft room and workshop. (*b*) *Special equipment:* Geography: special daylight camera equipment for use of projector; lantern, episcope, and lantern for strip film. Science: screen for projector and lantern, etc. Each bench fitted with electrical plug points controlled from wall transformer. One wall is fitted with opening door panels wired for experimental work. Motor car engine on bench. Charging apparatus, etc. Craftroom: fitted with tables and benches. Printing press and type racks. Apparatus for bookcrafts and light crafts. Workshop: Benches for wood and metal work, fitted with individual equipment. Four metal turning lathes, two wood turning lathes, drills, circular saw, band saw, fret saw, metal cutting saw, emery and buffing wheels and sandstone—all driven by two electric motors, shafting and pulleys. Work of erection done largely by boys working under the supervision of masters. Other machines handworked for special jobs in wood and metal. Hall: equipped for gymnasium work with wallbars, beams, ropes, box, buck, horse and benches. Contains also a projecting room which is fitted with Marshall sound and silent projector. Films shown on an aluminium screen 12 ft. by 9 ft. Stage fully equipped with side and top batten lights, footlights, floods, top and floor back lights with interchangeable colour screens, all controlled by a series of switches and dimmers. Buzzer. Linen curtain, green velvet back and side curtains. Three dressing rooms. Other equipment: radiogram (also used in music room), microphone, telephones (also used in the science room).

6. Organisation.—(*a*) *Streams:* The time-table is organised on the three-stream system for "A," "B," and "C" classes. (*b*) *Classes:* Forms 4 leavers, 4, 3*a*, 3*b*, 3*c*, 2*a*, 2*b*, 2*c*, 1*a*, 1*b*, 1*c*. Small classes have proved their worth, especially in the "C" stream, where group activities are encouraged, and classes may be sub-divided for special branches of work and individual instruction. (*c*) *Grouping:* Children are originally grouped from school records and intelligence tests. (*d*) *Revisions:* Children are given a further intelligence test on entering the school because they are drawn from six different Junior Schools. A further revision takes place at the end of the first term and first year from records of weekly class marks, and terminal examinations. (*e*) *Bias:* Advantage is taken of the excellent Handicraft and Science equipment, and

the school has gained a reputation of specialising on the practical side.

7. Factors Favourable to Achievement of Aim.—(*a*) School atmosphere. (1) Subject rooms. (2) Time-table arrangements; variety. (3) Staff; feeling of sympathy and encouragement between Head and Staff. (4) Discipline: form of self-government achieved by the Prefect system and a " team " system, the leaders of which are chosen by the boys themselves. (*b*) Interests. (1) Individual tastes and preferences are catered for in class. (2) Play readings, productions (*Treasure Island*; pantomime—*Robinson Crusoe*). Combined concert with Girls' Modern School. (3) Extensive use of recreative periods; games, physical training, etc. (4) Hobbies—stamp club, aero-modellers' club, Hornby club; school socials. (5) Literary society, debating society, and general interest society. (6) School holidays and camp (Llanfairfechan). Rambles, nature walks, sketching parties. (*c*) Skills. (1) Workshop practice, (2) Crafts, (3) Art and lettering, (4) Workshop drawing: worked with individual interests of children.

8. Obstacles to Achievement of Aim.—(*a*) School lessons have to conform to a time-table, which, though very elastic, is required by H.M.I.'s. (*b*) Unprepared state of many boys to receive instruction due to tiredness and undernourishment. (*c*) Insufficient co-operation between many parents and staff due, in main, to low mental standard of many of parents. (*d*) Out of school environment undoes much of the good done in school, with regard to speech, personal cleanliness, appearance; and there is a lack of opportunity for the development of hobbies and skills attained. (*d*) Lack of staff room accommodation. (Present staff room could be used for Head's waiting room, for leavers' conferences, etc.). Cookery room needed for provision of meals (dinner boys could then be properly catered for). Medical inspection room and library needed. (*f*) Demand is made by prospective employers for boys who can write and spell well; common sense and initiative do not seem to count.

9. Use Made of No. 7.—Great use is made of the good equipment in the school, and every effort is made by the staff to foster the growth of the many and varied interests of the boys, as outlined under No. 7.

10. Steps Taken to Overcome No. 8.—(*a*) More rest and recreative periods introduced. (*b*) Use of change and variety in time-table; films. (*c*) Sale of milk, biscuits, etc. (*d*) Open school for parents to visit. Parents asked to visit and see the School in

action. (*e*) Lessons in personal hygiene. (*f*) Suggestions have already been forwarded to cater for the extra year, which includes the provision of further buildings and equipment mentioned in No. 8.

11. "SCHOOL IN ACTION."—It is felt that the school does much towards the achievement of the aim. Having a practical or technical bias, the pupil, child and adolescent, certainly acquires modes of activity and skills which make his school life brighter and happier, and have a reaching effect on his post-school life. Old boys often surprise members of the staff by their appearance and bearing, and whilst they lack, in many cases, a little polish in their conversation, the spirit which exists between them and the school is excellent. In school, the effect of the practical work is recognised by the enthusiasm and interests of the pupils. Care, accuracy, and patience are developed, and the practical achievements are the impetus which create orderly habits in later life. So many old boys definitely have profited from their schooling. In an industrial area the practical training stands them in good stead, and many acquire skilled jobs where otherwise they would have been casual or unskilled labourers.

To achieve this, the time-table has, of necessity, to be flexible, so that any pupil with outstanding interests or gifts, may develop them to the full. In this way by selection and continued practice, skills are acquired which give the pupil confidence in his own ability, so that when the time comes for him to take his place in life as a wage earner, he can do so, sure that by his own efforts his occupation is secure and his progress certain.

In the same way, leisure time is catered for. Boys are encouraged by all the staff in their hobbies, however diverse these may be. They are given the opportunity for good and thoughtful reading, whether of serious books, fiction, journals, or newspapers; and receive every opportunity and encouragement to participate in all forms of outdoor games, athletic sports, and swimming, so that they may develop a healthy body to go with a healthy mind.

SCHOOL C2—SENIOR BOYS' NON-SELECTIVE SCHOOL

1. TYPE OF SCHOOL.—Senior Boys' Non-Selective.

2. SCHOLARS.—(*a*) *Average attendance:* 321. (*b*) *Age range:* 11 plus to 14 plus. (*c*) *Length of course:* 3 years. (*d*) *Main occupations of parents:* (1) Engineering workers. (2) Miners. (3) Labourers. (4) Unemployed. (*e*) *Mental ability:* Below average. (*f*) *Physical state:* Good. (*g*) *Any other information:* Majority of boys drawn from new estate which rehouses people from slum clearance areas.

3. STAFF.—*Give numbers, sex, and any special qualifications:* 14 assistants plus Head; all male. Special qualifications: 1 woodwork, 1 metalwork, 1 science, 1 music, plus 10 general practitioners who, however, specialise in one or more subjects.

4. THE SCHOOL.—(*a*) *Number of classrooms:* 9. (*b*) *Central Hall:* Joint use; this school one day per week. (*c*) *Special rooms —state purpose of these:* 1 wood and metal work (40 boys), gymnasium; science; art. (*d*) *Playground and playing field facilities:* 1 football pitch; 1 cricket pitch; both within school grounds.

5. EQUIPMENT.—(*a*) *Type of general equipment:* School opened in 1931; equipment modern. (*b*) *Special equipment:* Science: well equipped laboratory; workshop tools. Crafts: 3 lathes (metal); 3 lathes (wood); motor drive. Projector: 35 mm. silent projector; 1 epidiascope. Radio: 1 radiogram.

6. ORGANISATION.—(*a*) *Streams:* 3. (*b*) *Classes:* 10 (11 at beginning of year) (*c*) *How are children originally grouped:* (1) School Reports, (2) Intelligence Tests, (3) Examinations; by combined information of all three kinds. (*d*) *What revisions of the original groups are made and on what basis:* At the end of the first three months in school; then annually on masters' reports and examination results.

7. FACTORS FAVOURABLE TO ACHIEVEMENT OF AIM.—(*a*) Liberal staffing—all enthusiastic. (*b*) Reasonably good equipment. (*c*) Some choice of individual time-tables.

8. OBSTACLES TO ACHIEVEMENT OF AIM.—(*a*) Low mentality of many boys. (*b*) Adverse home circumstances. (*c*) Poor accommodation for dramatic work; no supply of films available for 35 mm. projector; latter not portable.

9. USE MADE OF NO. 7.—(*a*) Small groups possible; much variety in curriculum; completely specialised time-table. (*b*) Much doing of work, not much talking about it. (*c*) Boys are doing work they like.

10. STEPS TAKEN TO OVERCOME NO. 8.—(*a*) Cannot be overcome, but a wide range of activities within the comprehension of boys has been devised. (*b*) Deficiencies in habits, manners, taste, receive attention. (*c*) Classroom drama; still pictures on epidiascope.

11. "SCHOOL IN ACTION."—(*a*) The school provides: (1) Instruction in skills of the "mental" kind such as reading, arithmetic, etc., and of the "manual" kind such as handicrafts, gardening,

practical science, etc. (2) Opportunity for practice in activities chosen by the boys as well as in those chosen by the teacher. (*b*) An attempt is made to offer a wide variety of interests some of which will be " in tune " with the boy and in which in actual fact many of the boys become absorbed. (*c*) A large amount of work is done voluntarily and in after school hours. This seems to indicate some happiness in school and subject. (*d*) To-day, a normal day, I have seen amongst other things: (1) A group gathering peas, beans and beetroot from the garden for sale. (2) A group mixing and laying concrete for the footings of a greenhouse. (3) A group debating " Should schools have holidays in war time ? " (4) A group reading a one-act play. (5) A group listening to an orchestral concert on the radio. (6) A group comparing the conquests of Hitler with those of Napoleon and Alexander the Great. (7) A group playing cricket. (8) A group making garden and domestic implements. (9) A group discussing bauxite, its uses and sources. (10) A group making electro-types. (11) A dirty boy being made to wash himself. (*e*) Things required to increase chances of success: (1) More time. (2) A well-equipped stage and full time use of it. (3) A more liberal allowance of petty cash—we lose many bargains for lack of this. (4) A " school " for parents.

SCHOOL C3—SENIOR GIRLS' NON-SELECTIVE SCHOOL

1. Type of School.—Senior Girls' Non-Selective.

2. Scholars.—(*a*) *Average attendance:* 237. (*b*) *Age range:* 11 to 15 years. (*c*) *Length of course:* 3 or 4 years; dependent on girls' obtaining beneficial employment. (*d*) *Main occupations of parents:* Miners, labourers, industrial workers. (*e*) *Mental ability:* Average I.Q. of present first year—96. (*f*) *Physical state:* Generally good.

3. Staff.—*Give numbers, sex, and any special qualifications:* 10 women plus Head Teacher, including 6 C.W. two years' training, 1 D.S. three years' training, 1 B.Sc., 1 U.W. L.R.A.M. (Eloc.), 1 U.W., 1 H.C. M.A.

4. The School.—(*a*) *Number of Classrooms:* 10 (see (*c*) below). (*b*) *Central Hall:* One serving as gymnasium. (*c*) *Special rooms:* One of above classrooms with tables for craft, 1 art room with easels, 1 domestic science room, 1 science laboratory, 1 medical room, 1 library, 1 staff room. (*d*) *Playground and playing field facilities:* Two asphalt playgrounds, playing field (and gardens), lawn (used for art, dancing, etc.).

5. EQUIPMENT.—(*a*) *Type of general equipment:* Dual desks, fitted cupboard, fitted blackboards, cupboards, boards and easels, and teachers' desks, approximately filling available space in rooms. (*b*) *Special equipment:* Science: benches, sinks, store room, store cupboards and general science equipment of burners, beakers, etc. Crafts: trestle tables, gas ring, book-binding press, cupboards, looms, etc. Other equipment: piano, gramophone.

6. ORGANISATION.—(*a*) *Streams:* A, B, and C. (*b*) *Classes:* 10 (3 in each age group and 1 seniors). (*c*) *How are children originally grouped:* School reports. (*d*) *What revisions of the original groups are made and on what basis:* Made after first term, mainly on results of Intelligence Tests carried out by Committee's psychological expert.

7. FACTORS FAVOURABLE TO ACHIEVEMENT OF AIM.—(*a*) Reasonably good and adequate equipment and working conditions (not too full and perfect to stifle initiative). (*b*) Progressive and sympathetic Local Education Authority. (*c*) Staff of specialists (or teachers with good experience). (*d*) Local facilities for dealing with physical and mental defectives. (*e*) Co-operation of parents. (*f*) Children coming from varying types of homes.

8. OBSTACLES TO ACHIEVEMENT OF AIM.—(*a*) Class feeling liable to be engendered by 3-stream grouping. (*b*) One hall only; no room without complement of furniture; one Domestic Science teacher only; no house or flat for real-life practice of subject. (*c*) Tendency on part of children to expect " spoon feeding " and to feel that school conditions are artificial and divorced and distinct from life as they know it. (*d*) At present no Parents' Association, cinema, wireless, telephone or projector. (*e*) Age range of 12 to 16 years would be preferable.

9. USE MADE OF NO. 7.—(*a*) Every advantage offered by school and grounds is taken; attempts being made to develop resource of girls to supply deficiencies. (*b*) Syllabuses and length of work-periods are arranged and correlated by specialists responsible. (*c*) Girls requiring mental or physical treatment are dealt with immediately; intelligence tests are given for grouping. (*d*) Parents are invited to the school both to see work and to various entertainments and (before the black out) they helped with social activities to help the school. (*e*) Children co-operate, joining their various resources, in most school activities.

10. STEPS TAKEN TO OVERCOME NO. 8.—(*a*) School journeys, parties, " houses," displays, etc., are arranged as often as possible

to get a cross-section of classes. (*b*) Playground, lawn and field used when possible; desks grouped as required; existing medical and cloakrooms used for domestic science work. (*c*) Prefects are given some responsibility for the welfare of other children; girls are expected to deal with difficulties themselves wherever possible; suitable rewards or punishments are often left to the girls' own suggestions and judgment; attempts are made to use girls' own materials and experiences in all subjects and to express their views. (*d*) The various social activities will, it is hoped, lead to the formation of a Parent-Teacher Association. (*e*) Girls are encouraged to stay to the age of 15 at least by the formation of special class doing specially-prepared work and individual study; juniors are given, as far as possible, work on the lines of the Junior School.

11. "SCHOOL IN ACTION."—The curriculum and organisation are arranged to put before the girls various subjects and ideas of different interests not necessarily of immediate practical value, but which may result in development either of what the child can do well, or of latent ability.

By school journeys, festivals, solo performances, etc., award of merit badges and house marks for non-competitive achievements, attempts are made: (1) to develop capacity of thought for and sympathy with others; (2) to train children to make and find pleasure and entertainment from their own ability to co-operate and their own capacity to contribute to the common good.

Various subjects, *e.g.* languages (including songs and games, etc., in French and German), Handwork, Gardening, Domestic Science, Needlework, aim at developing ability to find ways and means, to find new interests; at providing conditions reflecting those of real life in which decisions have to be made, opinions expressed and upheld and at training in flexibility and adaptation to the needs of the moment. All subjects are correlated and in Arithmetic, Geography, Science, etc., closely related to local circumstances and conditions. Drama and speech training are considered as very important in encouraging self-confidence and self-respect. Moral training, aiming at giving good habits of thought and a tolerant attitude to life, is given whenever possible on the many occasions of school life and in the religious teaching. More opportunities for girls of varying ages to meet for various purposes, a room or rooms for those purposes, less artificial conditions of class and Domestic Science rooms and time-table restrictions (necessary at present owing to specialisation) would probably increase the chance of success in the achievement of the aim.

SCHOOL C4—SENIOR MIXED SCHOOL

1. TYPE OF SCHOOL.—Senior Mixed Non-Selective, receiving from two Junior Mixed Departments in the main.

2. SCHOLARS.—(*a*) *Average attendance:* 310. (*b*) *Age range:* 10 yrs. 10 months to 14 plus. (*c*) *Length of course:* 3 years (4 years in more normal times). (*d*) *Main occupations of parents:* Engineering and distributive trades, with a fair sprinkling of miners and labourers. (*e*) *Mental ability:* Very fair for this type of school. (*f*) *Physical state:* Good. (*g*) *Any other information:* Mental quality is poorer than formerly in the " A " stream owing to greater " creaming " to supply Secondary and Selective Central Schools.

3. STAFF.—*Give numbers, sex, and any special qualifications:* Total 17; includes 7 male assistants and Headmaster, with 1 qualified in Handicraft and 2 graduates (1 science, 1 History and English), and 9 female assistants, with 1 qualified in Domestic Science, 1 in Music, 1 U.W., and 6 others T.C.

4. THE SCHOOL.—(*a*) *Number of classrooms:* 8. (*b*) *Central Hall:* Hall-Gymnasium. (*c*) *Special rooms—state purpose of these:* Science, Art, Workshop, Domestic Science room. (*d*) *Playground and playing field facilities:* Small playground (inadequate); very good playing field with pavilion.

5. EQUIPMENT.—(*a*) *Type of general equipment:* Modern equipment throughout, though poor furniture in Domestic Science room. (*b*) *Special equipment:* Science: a very well designed laboratory with adequate material. Crafts: a good workshop, well supplied; a light craft room not so well equipped. Projector: a projector room—no projector. Radio: a radiogram and one or two sets loaned or assembled.

6. ORGANISATION.—(*a*) *Streams:* 3 streams, " A," " B " and " C." (*b*) *Classes:* 9 (will be more at beginning of school year). (*c*) *How are children originally grouped:* (1) School Reports: formerly this was the only criterion. (2) Intelligence Tests: these are now available and will be used in future. (3) Examinations: these used in conjunction with (1) and (2). (*d*) *What revisions of the original groups are made and on what basis:* See (*c*) (3) above. As this is a mixed school the grouping as between boys and girls has to be kept well balanced.

7. FACTORS FAVOURABLE TO ACHIEVEMENT OF AIM.—(*a*) Excellent school buildings. (*b*) Adequate apparatus and good playing field. (*c*) A generally good type of child. The " mixed sex "

character of the organisation is, from a social point of view, definitely better than if one sex only.

8. Obstacles to Achievement of Aim.—(*a*) Being a mixed school many more activities are required in the one building to meet the needs of both sexes. (*b*) Staffing is not so easy. (*c*) Duplication of apparatus often required.

9. Use Made of No. 7.—Thorough use is made of all facilities offered so that all activities which might make special appeal to any child or group of children can be included. A fairly free discipline allows for development of individual responsibility and initiative.

10. Steps Taken to Overcome No. 8.—By an elaborate time-table an attempt is made to give due time to all the activities and studies which both boys and girls require and yet make provision for their segregation for special subjects.

11. " School in Action."—The curriculum is arranged to give due attention to the " academic " skills without going beyond the range of the children's capabilities.

The school is, therefore, organised in three main streams for this purpose. The time-table reflects the view taken of the needs of these streams. The so-called " practical " subjects have a substantial share of time in all streams, but more in the " B " and " C " streams. By specialising the children are presented with a much fresher and more vivid view of the subject than was possible under " class " teaching.

By emphasis on the corporate life of the school the children are made to feel part of a community and encouraged to respond to demands made by the community. Under adequate supervision thrift schemes, milk supplies, etc., are managed by the children.

Life is made happy by voluntary activities, *e.g.* clubs, games, non-competitive displays of school work given without special preparation. Use of visits to works and industrial and commercial concerns is made with the help of the Labour Exchange. By special assemblies for broadcasts, by topical lessons, the children are kept in touch with the broad questions of the day. Morning Prayers and Hymns develop the spiritual side of life. The beauty of the grounds and the part that all the children play in keeping them so contribute to the development of the appreciation of the beautiful as a desirable and necessary element of everyday life. Projects requiring co-operation of many sides of the school organisation arise at frequent intervals and these are made great use of, though there is no attempt to " force " the project idea.

SCHOOL C5—SENIOR MIXED SCHOOL

1. TYPE OF SCHOOL.—Senior mixed School. The main portion of the school consists of an old Hall. A gymnasium and woodwork room have been added to the Hall. The school stands in its own grounds. The school is a non-selective school, children having been previously selected for places in the Secondary Schools and the Selective Central School.

2. SCHOLARS.—The children are drawn from a comparatively small area around the school. (*a*) *Average attendance:* 170 to 180. (*b*) *Age range:* 11 plus to 14 plus. Very few have remained at school until attaining their fifteenth birthday. At the present time the tendency is to leave at the earliest opportunity owing to increased number of available positions. (*c*) *Length of course:* Three-year course. One fourth year class has to be catered for in a very flexible manner—bearing in mind that many will leave during the course and also that this class is very mixed with regard to mental ability and attainments. (*d*) *Main occupations of parents:* Railway workers, colliery workers, and workers in engineering trades. Very few appear to be in executive positions. Very few unemployed at present time. In very few cases are mothers going out to work. (*e*) *Mental ability:* Wide range of ability. Median I.Q. would be about normal, but with a fairly large spread. The entrants for one year varied in I.Q. from 70 to 136. This wide range of ability in the district is also illustrated by the fact that a comparatively large number of children from this district gain special places in the Secondary or Selective Central Schools. (*f*) *Physical state:* On the whole remarkably good. Very few appear to be undernourished, very few deformities of any kind and eyesight and hearing are very sound on the whole. (*g*) *Any other information:* Very few of the boys are connected with any outside boys' organisation such as Scouts, Boys' Club, Sea Cadets. A few are in these organisations and similar ones. Some of the girls are Girl Guides and a number of the children seem to take an active part in Sunday School concerts.

3. STAFF.—*Give numbers, sex, and any special qualifications:* Headmaster—graduate. Four men trained certificated teachers. Senior assistant—specialist in Art, author of books on colour and art crafts. One graduate specialising in social studies. One specialist in Science and Mathematics. One specialist in Handicrafts and Physical Training. Five women trained certificated teachers. Senior woman assistant—trained Domestic Science specialist.

4. THE SCHOOL.—(*a*) *Number of classrooms:* 4 ordinary classrooms (one fitted with electric plug, screen on wall and map rail

for use as Social Studies room). (*b*) *Central Hall:* To serve as Assembly Hall, gymnasium, and for choral and dramatic work. (*c*) *Special rooms:* Room for needlework, Domestic Science room, Science room, Art room, Handicraft room, Greenhouse, Men and Women's staff rooms, Headmaster's room. (*d*) *Playground and playing field facilities:* Two small asphalt playgrounds, one for boys and one for girls. Netball pitch marked out on girls' playground. Sufficient ground for boys' football pitch, cricket pitch, rounders and tennis court. About quarter of an acre of garden under cultivation. Cricket pitch not laid and not very satisfactory from point of view of matches. Flower borders and shrubberies kept by children.

5. EQUIPMENT.—(*a*) *Type of general equipment:* Dual desks—one classroom with old pattern, others with locker type of desk. Blackboards to slide horizontally in frames on wall. Blackboards of small type. In Needlework room, Domestic Science room, Science room and room equipped for Social Studies are blackboards on easels. Small cupboards. Teachers' desk in each classroom—low type with drawers and knee-hole. (*b*) *Special equipment:* Science room: wall benches and tables and stools, demonstration bench, gas and water laid on and two electric plugs fitted. Fairly adequate apparatus for experimental work. Storage accommodation inadequate. Great deal of material for laboratory work available in grounds and garden and excellent opportunities for making records and observations of plant and bird life. Crafts: Art room fitted with water and gas ring—can be used for Art Crafts. Single desks with adjustable lid and holders for paint and water pots. Wall benches. Guillotine, glue-pot, book-binding press. Box for each child in which to keep work done. Handicraft room: wall bench, individual woodwork benches, forge, wood and metal lathes, drilling machine, circular saw, grindstone. Store room for small lengths of timber, metal and models. Domestic Science room: tables, folding chairs, gas and electric cookers, kitchen range, equipment for cookery and laundry work. Store-room and larder. Electric plug for electric iron. Needlework room: electric plugs for irons, hand sewing machine, treadle sewing machine, cutting-out table, tables and chairs. Radio: battery set in school which gives quite satisfactory reception; not convenient for different classrooms. Projector: Marshall 16 mm. sound projector—portable, can be used in any room with electric power.

6. ORGANISATION.—(*a*) *Streams:* Two streams. Subject matter and treatment of subject matter varied according to the abilities of the pupils. An attempt is being made to overcome the " A "

and "B" classification—difficult since children know themselves whether of greater or less ability than others. (*b*) *Classes:* Two classes in each year except fourth. Classes mixed (boys and girls)—separated for certain subjects, *e.g.* woodwork, domestic work, science, gardening—half classes taken in these subjects. The fourth year class consists of children of varying abilities and an attempt is made at individual work in this year. In this year children who have been in different streams are now in the same class. It is hoped to give more choice and elasticity of time-table to the fourth year group. The classes are simply numbered and the term "group" is used. (*c*) *Original grouping:* The children are grouped originally on the results of an intelligence test and attainment test, together with a consideration of the record at previous schools. (*d*) *What revisions of the original groups are made and on what basis:* Revisions at end of term based on progress made during the term—indicated by teachers' reports of the work done during the term, the results of term tests. In this connection it is hoped to introduce the use of standardised tests in order that results each year may be comparable. The temperament of the child is considered and the effect of moving a particular child into another class when on friendly and happy relations with other members of his present class, particularly in second and third year, has to be considered against the desirability of having the child in a class more suitable to his abilities.

7. Factors Favourable to Achievement of Aim.—(*a*) Situation of school, in own grounds, facilities for outdoor activities, appreciation of nature, development and maintenance of grounds. (*b*) Equipment and provision of special rooms for crafts and practical activities. (*c*) Mixed school containing a wide range of ability—this forms a good cross-section of a community.

8. Obstacles to Achievement of Aim.—(*a*) Economic circumstances of parents resulting in child having to take first available job—often before child is equipped to face the world. (*b*) A "leaving age" based on chronological age only without regard for temperament, mental age or attainments. (*c*) The early "leaving age"—children leave before they are really old enough to accept very much responsibility, and there is a likelihood of them having little opportunity of developing initiative and responsibility under sympathetic guidance after leaving school.

9. Use Made of No. 7.—(*a*) School grounds lend themselves to an appreciation of beauty (linked with Art), but also to a realisation that some effort is required if the grounds are to be kept beautiful

and parts made more beautiful (linked with Gardening). Familiarity may tend to breed contempt, but understanding and observation of the life (plant and animal), obtained through Natural History, in the grounds helps to develop respect. (This appears to be a slow process and is often a source of disappointment—possibly related to early leaving age). School grounds give good facilities for outdoor physical exercise (games, dancing and more formal physical training) and for open-air lessons whenever weather permits. (*b*) By provision of special rooms and equipment the child is able to use the real thing. The senior child has outgrown toy tools, toy laundry and cooking sets, etc. In a specially equipped room it is able to do a real job of work which may give a permanent interest leading to the child finding a suitable congenial means of livelihood. (From the Senior School the majority of boys enter industry and it may safely be said that all the girls will have to help in the management of a house.) If such training does not lead to a means of earning one's livelihood it may give a sufficient interest to form a happy spare-time activity. The right atmosphere can be created in a special room and training can be given in the care, maintenance and correct use of equipment—with reasons. There is a danger in this of giving the child equipment and an elaborate workroom which will not be available in its own home after leaving school. The child must be shown how much can be done with simple, inexpensive equipment, and there must be training in improvisation. Given enthusiasm, improvisation is more likely to be successful when the real thing is familiar. (*c*) The mixed school lends itself to training in co-operation between the sexes. Social development is helped by school concerts, dances. This is helpful to the boy with no sisters or the girl with no brothers. It is possible to give the boys some training in chivalry, but one must avoid the danger of putting girls in a privileged position. There must be a sharing of duties. The girls must not always be given priority.

10. Steps Taken to Overcome No. 8.—(*a*) It is difficult for the school to overcome this problem, but it can help the children in the situation in which they find themselves if it enables them to leave school capable of maintaining happy relationships with their fellows. Much might be done to help such a child overcome any feeling of inferiority or lack of satisfaction with his life by encouraging him to take an active part in an Old Scholars' Association and by developing his talents at Evening School and in his spare time so that should the opportunity of a more congenial occupation arise he will be in a position to accept it. A method by which children

who have to accept unsuitable occupations may be notified of more suitable occupations may be helpful.

(*b*) This is partly connected with (*a*), but not all children leave because of economic circumstances. Some help can be given here by discussion of the problem with parents, but at present although many parents are prepared to accept the fact that their child is rather " backward " in certain directions, few would be content to allow him or her to stay on at school for this reason, and the number likely to agree to such a step because the child was not very well fitted, socially or temperamentally, to start work would be fewer still. On this point it is interesting to compare the attitude at the Secondary Schools. Often a boy remains at school after the " leaving age " in order to make a second attempt at the School Certificate examination. In the Elementary School to stay on after the normal " leaving age " appears to be taken as an indication of lesser ability, otherwise a position would have been obtained. It would appear that this tradition will have to be broken. It may help to break this tradition if older pupils have more freedom of choice of activities and the opportunity to wander along new paths which they feel might lead to useful occupations. Some guidance should be given but care would have to be taken that the child's inclinations are not always over-ruled by the teacher's own views. The danger of developing an individual incapable of settling down to one piece of work and seeing it through must also be avoided as far as possible.

(*c*) Some attempt has to be made to develop a sense of responsibility in the older pupils. At the age of 13 to 14 plus few are capable of exercising wise and sympathetic control over others, although there are exceptions, and such control is more possible if the group over which responsibility is to be exercised is kept small. More responsibility for " things " should be granted than for children. Responsibility for checking equipment, tools, arranging programme for school dance and concert and for tickets for such a function. Election of house-captains with special duties is helpful. These duties can include responsibility for collection of registers, signals for end of lesson periods, planning of programmes for house meetings, selecting teams for house-matches. Care must be taken to avoid the danger of making the house-captains a convenient means of getting " odd jobs " done. Their responsibility must be real. Authority over other children to be granted to a house-captain only when one is sure of the boy or girl concerned. Difficulties may arise if such authority is granted too soon, since it must be

remembered that at 13 to 14 the house-captains are themselves only children and will behave as children, make hasty decisions and be liable to administer their authority unwisely. Training can start in this direction, however, by allowing house-captains to act as chairmen at house meetings and to conduct meetings of sections of the house on their own. At full house meetings a member of the staff could help in drawing up the agenda and by attending the meeting in an advisory capacity. For smaller meetings the agenda could be discussed by a teacher with the house-captain before the meeting, but the teacher need not attend the meeting. The results of the meeting should, however, be considered important and carried out as far as possible. Where responsibility is granted some help will be required, otherwise difficulties may arise which are too much for the child, and if his efforts do not meet with success he may become discouraged and a feeling of frustration may arise. The help to be given, however, should be in the form of helpful advice not criticism of errors made—not by the method of condemning actions which have been done but by the more positive method of suggesting things to do. Not " You should not have done this," " You should not do that," " You cannot do the other," but " Wouldn't it be a good idea if we did this," " I think we should find it better to do that," " We can try to do the other."

11. " School in Action."—The curriculum of the school endeavours to supply the child with the opportunity of: (*a*) Developing skills such as the three R's, which enable the child to carry on an " existence " without the feeling of being different from his fellows and which enable him to carry out most of the simple day-to-day tasks of the ordinary citizen. (*b*) Discovering his own special interests and abilities, and here activities such as Handicrafts, Domestic work, Gardening, Science, Art are helpful and may help (*a*) in guiding in the choice of a means of livelihood, (*b*) in enabling the child to become a helpful member of a household in later years, (*c*) in providing a happy activity for leisure hours either as an individual or as a member of a group. (*c*) Widening his outlook on the world, his knowledge of his fellows, their achievements, failures and disappointments; in this connection the activities already mentioned together with Social Studies, group activities in Drama, Singing, Physical Training and Games are helpful. (*d*) Keeping the body fit and healthy and understanding its proper functioning. Here physical training and games would appear to be the important activities, but many of the other activities help in maintaining a sound body.

All the activities mentioned have a part to play in the spiritual development of the child as well as the material and physical, and together with the Scripture teaching help to inspire the child to continue the search for truth and help him to make his " existence " into a state of " living "—living a full life.

In all types of activities the special weaknesses and abilities of each child have to be considered, as far as possible, and the work has to be adjusted to these weaknesses or abilities. That is, the work must start at a level at which the child is capable of achieving success. In the skills of Arithmetic and Reading tests determine the level reached by the child and also tests determine special weaknesses. From these a starting point can be obtained and special weaknesses dealt with, and the work can be kept within the scope of the child. So long as the work is known to be within the scope of the child's abilities a high standard can be demanded. This is necessary if the child is to develop in such a way that he is capable of making full use of his abilities.

The planning of the garden, the maintaining of the gardens, the activities within our own grounds help to create the idea of a community in which all must help.

Financial problems make it difficult for all to share equally of the produce of the garden. If these problems could be overcome and all could be made to feel that they had a share in such produce, it would be helpful in developing more strongly the sense of working for the good of the community.

Experiments on the lines of all sharing the garden produce have still to be tried, but would appear to be useful.

The success of the school can only be judged by the way in which its old pupils find their place in the world a number of years after leaving school, by the way in which they live with their fellow-men, and by the way in which they make their life of real service to the community. It may also be judged to some extent by the enthusiasm of the parents in their desire to help the school and to allow their children to take a full part in the life of the school.

The first of these criteria is difficult to use at the present time since so many of the older Old Pupils are having to render service along lines directed by circumstances outside their control. By the second criterion, however, it would appear that the school has met with a good measure of success, since many parents are keen to help the school and its present scholars, even though their own children are no longer in attendance at the school.

It would no doubt be helpful if there were greater opportunities for pupils and staff to live together in school camps or similar

establishments—not simply as a holiday—but to help all to develop a greater sense of responsibility to the community in which they live, of responsibility for the actions of others in the community, of service for others in the community. This feeling of membership of a community can be developed by all sharing in the work of the camp—not by everything being done by a few so that the others may be free for other activities. The " other activities " of camp-life must be included, but again so that all may have the opportunity of taking part.

A difficulty may arise for the child if the standards of the school are different from those of the outside world. The standard of achievement of the outside world does not appear to be happiness in the service of others, but contentment resulting from successful competition with others, and it is often difficult not to use the standards of the outside world in certain school situations. If the standards of the outside world are ignored then the child may feel that the school standards are artificial and he may lose his faith in school and teachers. If he accepts the school standards entirely he may find himself unprovided for when he leaves school. A compromise seems necessary, therefore, until such time as the world accepts service (however humble) to the community as of greater importance than ability to compete in economic and social life. A compromise, however, which is weighted to show the supreme importance of using one's abilities in the service of others is the hope that the standards of the world may slowly but surely progress towards those of a true democracy.

SCHOOL D—SELECTIVE CENTRAL SCHOOL (MIXED)

1. TYPE OF SCHOOL.—Central Selective (Mixed).

2. SCHOLARS.—(*a*) *Average attendance:* 354. (*b*) *Age range:* 11 yrs. 3 months to 16 yrs. 6 months on average. (*c*) *Length of course:* 4 years, with extra fifth year with stronger commercial bias. (*d*) *Main occupations of parents:* Working class—generally artisans. (*e*) *Mental ability:* Generally good throughout. Mental testing by Moray House Tests on entrants in 1937, 1938, and 1939 gave results as ranging from 95 to 130 I.Q. Arithmetic quotients were lower in girls than in boys; English quotients higher for girls on average. (*f*) *Physical state:* Good; no cases of serious physical defects. Eyesight generally good. Very little stammering. Two cases of malformed mouth. (*g*) *Any other information:* Very few cases of malnutrition have been detected, though an occasional child has

received free milk from us and we have helped by giving free hot midday meals.

3. STAFF.—*Give numbers, sex, and any special qualifications:* Headmaster plus 16 staff plus 1 (recently transferred from Senior Boys' School). Six women: Chief woman assistant (English, Art, Craft). Biology specialist—B.Sc. in Zoology. Two French specialists—B.A. (Hons. French, residence abroad). Physical Training specialist (summer schools). Eleven men: B.Sc. (Hons.) (Chemistry and Woodwork), M.Sc. (Physics and Mathematics), M.A. (History and Mathematics), M.A. (Music and Mathematics), B.A. (Physical Training and Mathematics). M.A. (English and Mathematics). B.Sc. (Science and Mathematics), Inter. B.Sc. (Science and Mathematics), Art master and metalwork, Geography master.

4. THE SCHOOL.—(*a*) *Number of classrooms:* 9. (*b*) *Central Hall:* 1. (*c*) *Special rooms—state purpose of these:* (1) Art room, (2) Domestic Science room, (3) Physics laboratory, (4) Biology laboratory, (5) Library, (6) Dining Hall, (7) Woodshop, (8) Metalshop, (9) Prefects' rooms, (10) Rest room. (11) Staff rooms, (12) Dark room (photography, experiments on light). (*d*) *Playground and playing field facilities:* Small playground with tennis courts and net ball courts marked out. Park lands for games, gardens for leisure walks; cricket, football, hockey grounds are rented.

5. EQUIPMENT.—(*a*) *Type of general equipment:* Dual desks in eight rooms, single locker desks and chairs in Geography and Art rooms. (*b*) *Special equipment:* Science: benches (fitted) and stools in both laboratories; electricity distribution to benches in Physics laboratory; 4 microscopes in Biology laboratory. Crafts: metal and wood shops—lathe in each. Projector: epidiascope; microprojector in Biology laboratory. Radio: yes, with attachment to gramophone turntable; gramophone; member of staff uses own cinema apparatus. School Gardens for boys and girls.

6. ORGANISATION.—(*a*) *Streams:* 3 streams R (best), A (next best), B. (*b*) *Classes:* 12 classes. (*c*) *How are children originally grouped:* On entrance examination results modified (during past three years) by intelligence tests. (*d*) *What revisions of the original groups are made and on what basis:* All first year work on same syllabus. At end of Christmas term a full written examination is given and on results Year I is completely regraded. Work is continued on the same syllabus for the rest of the year. At Midsummer a full examination is given and on its results children are finally regraded, but absences for illness, etc., are taken into account.

No further regrading takes place until end of third year, when children make their own choice as to courses to be followed.

7. Factors Favourable to Achievement of Aim.—(*a*) Atmosphere of house and its traditions. Peace and beauty of grounds. (*b*) Reasonable size of classes; we keep many children beyond age of puberty and find that they become settled in character and appreciate freedom to discuss problems. (*c*) Much responsibility is thrown on children. They do not expect me to " let them down "; vice versa I do not expect them to " let me down." (*d*) Well-qualified staff; children feel a sense of security allied to comradeship.

8. Obstacles to Achievement of Aim.—(*a*) Lack of time; I often think our day should be extended to give more time to social activities. (*b*) Necessity for teachers to take on Evening School work—a married teacher with family responsibilities is driven to this expedient. (*c*) Lack of money—inequalities of income make it difficult for some children to join in proposed journeys, etc. This affects communal meals.

9. Use Made of No. 7.—(*a*) House system; reasonably free discipline in moving about building, oversight reduced to lowest possible point. (*b*) Teachers free to organise work and to experiment —as specialists they are expected to carry out their own syllabuses. (*c*) Children are supported in every venture they undertake—concerts, socials, etc.

10. Steps Taken to Overcome No. 8.—(*a*) Dinner period is often used. (*b*) I have no answer to this except the obvious one. (*c*) We average out as far as possible, but feel that some endowment for these purposes would be a " godsend "; we suffer from the tradition of fifty years ago when schools had to raise funds to buy their own pianos.

11. " School in Action."—As stated under 9 (*c*) we encourage children to use initiative in every possible way. (Only to-day some senior boys asked to be allowed to try to cook—they had an afternoon at it—and did well.)

The general principle throughout is " self-control " as foundation of discipline allied to " courtesy " and " consideration for others." We try to get rid of self-centredness of children and merge it into a social sense.

I attach a great deal of value to my Wednesday morning addresses to the whole school. In themselves they are of little worth perhaps, but the effort is made to give a character to the school and to make the children and staff and myself realise we are members one of

another each with our own contribution to make. I try to be sincere and convey to the children simple ideas of *worth* and *duty* and *self-reliance*. The order of this service is (*a*) Hymn. (*b*) Bible reading by forms in turn, *i.e.* selected reader selecting his own passage. (*c*) Prayers. (*d*) Music. (*e*) Address. (*f*) Music (generally piano solos by music master).

In these days our aims are being frustrated by so many children leaving at an early age; we find that the period 14·3 to 15 is the most valuable. Get a child past that age and he ceases to be individualistic—he gets a sense of the "school" as a whole.

The Staff. (*a*) Young teachers do not find it easy to combine the happy "working" atmosphere with a happy "freedom." On the other hand, the older teacher finds routine the easier way.

(*b*) *Personal reactions.* The greatest obstacle is twofold—(1) A lack of a genuine sense of fun—I mean kindly fun—to round difficult corners in the classroom. (2) A lack of mastery of the craft of teaching—one should be able to do the most extraordinary things in a lesson and get there all the same. Colour, laughter, excitement, wonder plus an electric something should frequently come from the teacher.

All these replies deserve careful consideration. Through them the student will find a common purpose running, expressing itself in various ways in different environments. Worthy of study, too, are the suggestions made whereby the chances of success in the attainment of the aim could be increased. The work of the Infants' School described in A1 should be compared with the list of activities found by the Headmaster in one day at School C2, and it would be possible to show the same connection between other examples. All indicate the variety of work now being done in the schools and the ferment which is bringing about a real revolution in education. With this revolution administration must keep pace. The old rigid organisation is useless in the new setting, and it must be replaced by an organisation characterised by fluidity and adaptability. The schools described give evidence of a willingness on the part of school organisers to meet the challenge confronting them.

CHAPTER XIX

RECORDS AND RETURNS

EVERY Education Authority is called upon at some time or another to furnish returns to the body administering the service. It is also essential that carefully prepared records both of the work of the school as a whole and of the individual children attending it should be kept. To many who are most deeply interested in real educational activities, the making of statistical returns may appear to be both a burden and unnecessary. It is true that very much in education can never be recorded in tabular form. It is also true that the recording of educational data may be misleading on account of what must, from necessity, be omitted. But this does not imply that educational facts and figures are not of value, but only that they must be interpreted with care and with a knowledge of the whole field from which they were obtained. For example, to compare the cost per pupil in attendance at an Elementary School in one area, in which new schools have been erected, and in which heavy loan charges on the buildings are being paid, with the cost per pupil in another area in which the majority of schools are non-provided is to compare figures arising from unlike conditions. Wrong deductions would arise from a comparison of the rate cost of education in a distressed area with the rate cost in a high-class residential one, unless the different circumstances were taken into account. It is largely true that figures can be made to prove anything and may be classified as lies, damned lies and . . . statistics. The great care which is needed in interpreting educational statistics, as indeed is the case in all statistics, arises from the necessity of knowing the precise purpose for which they were obtained.

Two processes are involved in the compilation and interpretation of any given set of statistics. There is the point of view and purpose of the compiler of the figures and the point of view of any other person who may subsequently attempt to interpret them. Unless the interpreter is fully aware of the object for which, and the manner in which the original figures were obtained, he may fall into very grave error in his use of them. In this connection, omissions from the data may be as important as material included in it. For example, subsequent to the publication of the three Hadow Reports, the Board of Education published annually a table

supposed to indicate the progress of reorganisation. This table was based upon returns furnished by the various Local Education Authorities throughout the country. But these same Local Education Authorities had diverse ideas as to what constituted a reorganised school. There were cases in which the process of reorganisation was viewed as one of reshuffling the pupils into the "Hadow" age groups, with practically no change in the building, equipment or curricula. Other Authorities awaited the erection of the suitable buildings and the provision of adequate equipment before reclassifying the scholars. But in both cases, the result counted for the same in the published figures.

In general, returns are made to an authority external to the school while records are more often a matter of internal needs. It may be, of course, that the external authority insists upon certain records being kept, such as, for example, the admission register, the register of attendances, and the punishment book. But these are always kept in order that statistics may be provided for the Local Authority or the Board of Education when called for. There is, however, another class of records which are, as it were, private to the school. These records concern in the main the work carried out in the school and the progress made by the individual scholars. Such records vary from the coldly official statement which has to be entered in the Log Book, which has to be open for inspection by H.M.I.'s or other duly authorised persons, to intimate, personal records of individual children. The Log Book must contain nothing but statements of fact. Neither the Head Teacher, who keeps it, or any visitor who has the right to make an entry in it, can go beyond a factual statement. The records of children's work are frequently kept on some form of record card. These vary in the facts recorded from Authority to Authority and school to school. A copy of one such record form now in use is given on pages 341-2.

This record card is intended to be passed from the Infant School to the Junior School, and from the latter to the Senior School as the child progresses through his or her school career. Such record cards furnish the official record of the child and often what is omitted may be as important, and sometimes more important, than what is included. The wise teacher will therefore keep private records of each child with whom he or she is brought in contact. Such records should include the emotional reaction of the children to certain situations, any point of special difficulty found by the child, its relations to the teaching staff and to other children. It should furnish the raw material from which the teacher, by repeated reflection upon and co-ordination of the data obtained, forms a

SCHOLAR'S RECORD

Name:— *Date of Birth:*—

Schools (*a*) *Dates of Admission* (*a*)
(*b*) (*b*)
(*c*) (*c*)
(*d*) (*d*)
(*e*) (*e*)

Addresses (*a*)
(*b*)
(*c*)

Year																				
Class or Form																				
Term Ending																				
Number																				
English																				
H'dicraft																				
Art																				
Housecraft																				
History																				
Geography																				
Science																				
Language																				
Physical Exercise																				
Position in Class																				
Number in Class																				
Percentage Attendance Made																				

SPECIAL REMARKS (*Character, Ability, Initiative, Industry*)

Class or Form	*Remarks*	*H. Teacher's Initials*

(1) *Details of Physical (or other) Defects (including prolonged absence)*

(2) *General Remarks*

(3) *Further Education*

(4) *Occupations*

concrete picture of the individual child. Unless some such record is kept, there is a danger of the " Common Room " opinion of the child being substituted for a genuine personal judgment of it.

The simplest form of return is that which asks for a numerical statement referring to one or more items, each of which is directly measurable. There should be, for example, no doubt as to what is intended when the number of children participating in a milk scheme at a particular school is asked for. Similarly, the number of children attending a school and above a certain age at a certain date is capable of ascertainment. It is when the information requested is not so capable of direct measurement that difficulties begin to arise. Typical of this kind of information is the return expressing, for example, the preferences of children for certain types of literature. Children are always prone to give replies in accordance with what they think are the wishes of the questioner, and are always suggestible. It requires practice and skill to produce such a return with a high degree of accuracy. Still more difficult is the

return which asks for data regarding matters incapable of direct measurement. Anyone who has had the experience of drawing up a questionnaire and of collating the answers received will appreciate the difficulty. The questionnaire has to be so framed and worded that a number of different observers with differing mental backgrounds and outlook will interpret it in a similar manner. On the other hand, the value of the answers given on the questionnaire must depend to a very great extent on the reliability of the people giving them.

It is not proposed to give here a list of all the returns commonly asked for by the Board of Education or the Local Education Authority. The Authority will commonly require in some form or another a weekly, monthly, quarterly, and annual attendance return. The Board will require an annual attendance return (commonly known as " Form 9 ") which is submitted through the Local Authority in accordance with instructions issued with the form. Weekly and monthly staffing returns will also be demanded, and these are commonly incorporated with the attendance returns. If a system for the provision of free milk is in operation, returns relating to this will also be required. There will be some form of record and return relating to the absence of teachers, this being rendered necessary by the sick pay regulations of the Authority. In addition to these and other returns which have to be made at stated times and intervals, there are others which are called for under special circumstances. The good organiser will have a list showing the weekly, monthly, or quarterly returns necessary and will also make a special note of the times at which other returns are required. There is nothing more irritating or more prone to waste time and create petty friction than having to hold up a return for a higher authority because one Head Teacher fails to submit his or her return on the required day. Promptness, accuracy, and clarity should mark all returns submitted from the school. There has been perhaps a tendency to increase the clerical work done in connection with the schools during recent years. Many Head Teachers complain of the amount of their time which has to be devoted to this purpose, with the result that they have less time to spare for the more strictly educational work of the school. It is often argued that in a school of any size a clerical assistant would be a real economy. While there may be some force in this argument, it is equally true that if the records within the school are complete and up-to-date any information asked for can usually be obtained without undue trouble. Administrators should refrain from calling for unnecessary or over-complicated returns, and school organisers

should maintain their records up-to-date. This is not meant to imply that an undue proportion of time should be allocated to this purpose, but only that it is an essential part of the organiser's work. Many years ago Professor Adams pointed out that in order to teach John Latin the organiser must know both Latin and John. So, too, the good organiser will know his school, through the numerical returns that express it objectively and through the individual children, their capabilities, defects, their triumphs, and failures, which together make up the real life of the school.

The organiser must decide very largely for himself or herself the form and nature of the internal records kept. These will probably include the curriculum followed by the school and by the individual classes or forms which compose it. There will also, no doubt, be some record of the work carried out by each teacher, and this will be in more detail than the general curriculum. It will be the organiser's duty to see that the curricula in the various subjects are co-ordinated and the members of the teaching staff are working co-operatively and not as a series of isolated units. In other words, it is the organiser's responsibility to see that all the work done in the school has for its objective the fulfilment of the purpose of the school.

There are many different forms of individual record cards in existence. These range from the form which gives merely the results of terminal or annual examinations and the position gained by the child in the various forms during his school career, to a form in which observations regarding the temperament, character, health, and general attitude of the child to school life are recorded. Sometimes the Authority will issue its own record cards, and in such cases these can be supplemented if necessary by the school's private records. It is becoming increasingly recognised that the mere statement that in Form III John was 10th in Arithmetic, 14th in English, 8th in Craft work, etc., and 10th in final position may mean very little, and give no true picture of the real John. In a previous chapter it has been pointed out that an increasing number of auxiliary services all concerned with child welfare have developed during recent years alongside the strictly educational service of instruction. To get a complete picture of John his record must touch all points and aspects of his development. In the Nursery Class the fact of whether he is aggressive or submissive, sociable or solitary, must be noted, since these are tendencies which will affect the whole of his subsequent education. Further, the reaction of his education upon these original tendencies will do much to determine the kind of adult he will become, and the type of work for which he will

prove most suitable. Such records of individual children must not be allowed to become sentimental and garrulous chatter about passing states of the child. The teacher must learn to select the wheat from the chaff and record those items which have real significance. This is not an easy task, nor is the power to carry it out one which comes without an effort on the teacher's part. Its exercise demands in the first place a sound knowledge of child development and in the second place a sense of that equality and importance of all children which enables them to be viewed without prejudice or bias of any kind whatever.

The organiser who tends to concentrate upon the numerical aspect of the school is prone always to lose sight of more significant matters. Statistics are necessary but are never an end in themselves. They may serve to indicate trends and to show the necessity of reorganisation, as has been pointed out in the previous chapter. The wise administrator uses them, but does not fall into the fallacy of believing that they can truly assess the worth of his school. He interprets the numerical data in the light of his school as a field for the development of the children attending it. A periodical statistical survey of the school may bring to light certain features which have been overlooked and require adjustment, and is therefore a step which should be taken, but the results of such a survey are only of relative value. They should never be accepted absolutely.

CHAPTER XX

CONCLUSION

THROUGHOUT this volume there has been emphasised the point of view that the educational service of any country expresses the sense of values of the community and indicates the direction in which it is moving. It appears likely that it will be published at a moment when the state of Europe would appear to give the lie to this contention, and when it might seem that naked power is the ultimate arbiter of the fate of mankind. But it was Napoleon who once remarked, " There are two forces in the world; the force of the sword and the force of an idea; and *the latter will always win.*" And Napoleon had had enough experience of the sword to know. Nor was he alone in this faith. The following extract from an article by Professor Reinhold Schairer, Head of the Department of International Relations in the London Institute of Education, included in the Year Book of Education for 1940 demands careful study, as does indeed the whole article. He says, " This war, as I write more than half a year old, will be either the starting-point of a new and unexpectedly strong drive for a regenerate mass education in Europe with much more equality, freedom and true humanism than now, or it will be the end of every form of education in the sense cherished and cultivated by most Western free nations. The decision, which of the two ways fate will choose, depends not alone upon the issue of the armed conflict. It will depend largely upon the attitude of the educators.

" History teaches that victorious nations often omit steps towards educational progress. But often even vanquished and suppressed nations can maintain and increase, under the influence of strong spiritual forces, and in spite of suppression, the strength of real, deep education, cherished by the masses and led by devoted leaders and martyrs. Poland, during her oppression under foreign powers, was an example and could provide the same example again; Finland's glorious march of education in the nineteenth century is another example; and Denmark gained strength after losing all her wars. Defeated France after 1870 laid the foundation of a new system of mass education such as she had entirely neglected during her " glorious " prosperity before.

" On the other hand, a young French boy of 17, later known as the poet Jean Arthur Rimbaud, made a surprising statement in

1871: "The weakness of the Germans is that they won the war." This boy of 17 was illuminated, as youth often is, by an inner light, penetrating deep through skin and surface and showing the real structure of bodies social and political: victory and boasting, prosperity and complacency, are destructive of the finer inner forces which we regard to-day as the real essence of the process of refinement called education.

" At this point we reach a curious and surprising situation. The war may end as it may; the attitude of men and women responsible for education will be more decisive for the future of humanity than even the finest and most remarkable performance of military strategy and the most striking victories won by the courage of millions of soldiers. Victory and defeat keep in some secret way, to use Swedenborg's words, the inner balance, by their influence on the forces which create the life-strength and direction of the coming generations. So this is the first conclusion we reach: to the strategy of armed forces, to the strategy of statesmanship and diplomacy, to the strategy of world trade and commerce, there is added on the stage of world affairs a new art, the strategy of the educator.

" There is no escape; this war will put the question: Whither education? And there will not be allowed any postponement or even delay for the answer.

" Wars in the last forty years have changed in one sense at least. Former wars entailed pestilence and epidemics. These sufferings have been to a large degree conquered by science. The pestilence of war to-day is in the inner field: many of the finest values, cultivated like precious flowers, are destroyed, and in the waste land thus created, in place of belief—belief in humanity, belief in the good, belief in ideals—the thistles grow, thistles of desperation, opportunism, cynicism, sheer glorification of egotism, brutal force and the right of the stronger.

" But this devastation has an after effect: it has called to action during and after every war in modern history a few men and women, the pioneers in education. In the past they made desperate attempts to counteract this dangerous situation, this wholesale devastation of the inner garden of intellect and soul. The history of education reveals in certain post-war periods some of the most striking advances of this kind."

It is believed that the principles of organisation discussed in this volume will hold when an educational advance comes again in post-war years. The argument of the book may be briefly recapitulated. It is that the organiser must be aware of the values and

direction of movement of the community of which he or she is a part and so organise the facilities under their control that they play their proper part in developing in the younger generation this sense of values and direction of movement. To this end the organisation of the whole system, the school buildings and equipment, the teaching staff and the curriculum, must alike be directed. Organisation is never an end in itself, merely a means to an end. It must never be allowed to become static, but be kept dynamic and flexible, incorporating within itself all that is worthy in the past and advancing willingly to embrace new ideas.

It is perhaps not out of place to suggest one or two ways in which the new order of society, which must come after the war unless Western civilisation is to collapse entirely, will differ from the existing one. In the economic sphere there will have to be a planning of the resources of the world in order that they may be used for the benefit of all and not exploited for the profit of the few. This will have to apply to raw materials, foodstuffs and all kinds of labour alike. It implies changes in the political sphere and also in that of human relationships. Further, in the political sphere itself there must be a recognition of the fact that terrestrial space and time have been so overcome that the contact of people with people and their interdependence one upon another grows rapidly more close. This implies the passing of the old concept of self-sufficing, independent nations. It means some new international organisation, and this will again involve some economic implications. There remains a third sphere which for want of a better word may be called the sociological. There is a growing recognition of the need that knowledge should be socialised and used for the welfare of mankind. Further, the discoveries of mankind should not be allowed to lead to unemployment or alternatively to the use of man's inventiveness for destructive purposes. This all means knowledge, organising skill, will and a readiness to relinquish purely selfish, personal motives for wider and more general communal ones. This in its turn means that man must achieve knowledge of himself and of the forces operative upon him, both from without and within. The control of these forces is essential to the happiness of a modern world and constitute the only ultimate remedy for the chaos of the present world. This implies faith in a purpose which transcends the individual, but which at the same time provides him with a purpose for the utilisation of his own potentialities in the service of all.

The actual form of political, economic, and human relationships which will develop after the war are not subjects for discussion here.

But they will have to make possible a planned, intelligent world wherein human values are recognised and where the motive power is service in and for a community of which one is a willing member. This means a faith; it means knowledge used in the service of that faith; it means will power to express the faith in action. Faith without knowledge, and either without will power are alike useless, so the schools must lay the foundations of the faith, both in what they are and in that which they teach. They must give their pupils knowledge and a desire to use it, they must develop the active will to use knowledge in action, and not simply to be content with possessing it.

Further than this, it seems impossible to go. The one certain thing is that there will be changes. The schools will change in their relationship to the outer world; they will also change internally. The war has tended to stress the importance of technical training and physical education. These are excellent in their way, but are not ends in themselves but only means which should serve a wider end. The fitter must know why and for what purpose he uses his skill, and the athlete must be aware of the proper use of his body.

Administrators and organisers will need to be more flexible in their mental outlook than ever before. They must hold on firmly to their general principles and test each forward step by a consideration of its relationship to the ultimate end of education. Unless there is this flexibility in the educational service the mistakes of the past will be repeated. There is a physical and mental weariness which comes at the end of all wars and which results in the pre-war period appearing in a roseate hue. But mankind has to struggle forward and the schools in particular must lead the way. At the conclusion of the last war General Smuts remarked, " Mankind has struck its tents and is once more on the march." It marched to a new conflict which surpassed the agony of the previous one. This time the march must be not to a land fit for heroes to live in, but to one fit for all the ordinary, common people of the world to live in, and the schools must show the way.

" See him there, the urchin, seated in the sun with a wall at his back and a book in his hand. He has a thicker wall before him—the wall that hides him from the future." Here is the symbol of all true education. The " wall " is made up of the values of the community in which the child should be rooted; the " book " is symbolic of the means of education; the " sun " shines because of the sense of security there should be in the developing child's environment, but there remains that " wall " that hides him from the future, and it is not an exaggeration to state that never before

in the history of mankind was that wall so difficult to scale. It is the function of educators in whatever type of school they may be serving, to see that their pupils have faith that the wall can be scaled, the knowledge of the means by which they can scale it, and the creative will which will drive them over the wall to tread the unknown paths. The organiser has this task as the purpose of all his organisation, and it is the fire of that purpose which alone can bring his work to a successful issue.

It is not enough for a few to know many things and for the majority to know nothing, and therefore be forced into blind obedience or to be at the mercy of propaganda. What is necessary is that many more people should know much more in a creative way. Unless the teachers are imbued with this living faith, the pupils can never gain it. Education comes from a contact of mind with mind, and apathy is as contagious as enthusiasm. When the war ceases and the need for a better educational system becomes apparent, those engaged in the work will be confronted with great opportunities. Should they rise to the full stature of the true educator they will be able to say with Burke, but speaking of a wider world, " Methinks I see as it were above the hilltops of time, the dawn of a brighter and a better day for the people I love so well."

APPENDIX I (see Chapter IX)

NOTES ON EDUCATIONAL NOMENCLATURE.

(From the Report on the Education of the Adolescent.)

A. Terms which have some Statutory Authority, having been Partially Defined, or at any rate Employed in Acts of Parliament which are still in Operation.

(1) **Elementary Education, Elementary School, and Public Elementary School**

The Elementary Education Act, 1870, defined " Elementary School " but not " Elementary Education." That statute apparently assumed that " Elementary Education " was an expression the meaning of which was well understood, inasmuch as it embodied a reference thereto in its definition of an Elementary School in Section 3, which runs as follows:—

" The term ' Elementary School ' means a school or department of a school at which elementary education is the principal part of the education there given, and does not include any school or department of a school at which the ordinary payments in respect of the instruction from each scholar exceed ninepence a week."

The expression " Elementary School " is seldom used in the Education Act, 1870, except in association with the word " public." The expression " Public Elementary School " was defined in Section 7 of the Education Act, 1870, re-enacted in Section 27 (1) of the Education Act, 1921, which runs as follows:—

" Every elementary school which is conducted in accordance with the following regulations shall be a public elementary school within the meaning of this Act; and every public elementary school shall be conducted in accordance with the following regulations (a copy of which regulations shall be conspicuously put up in every such school; namely:—

" (*a*) It shall not be required, as a condition of any child being admitted into or continuing in the School, that he shall attend or abstain from attending any Sunday School, or any place of religious observance or any instruction in religious subjects in the school or elsewhere, from which observance or instruction he may be withdrawn by his parent, or that he shall, if withdrawn by his parent, attend the school on any day exclusively set apart for religious observance by the religious body to which his parent belongs.

" (*b*) The time or times during which any religious observance is practised or instruction in religious subjects is given at any meeting of the school shall be either at the beginning or at the end or at the beginning and the end of such meeting, and shall be inserted in a time-table to be approved by the Board of Education, and to be kept permanently and conspicuously affixed in every schoolroom; and any scholar may be withdrawn by his parent from such observance or instruction without forfeiting any of the other benefits of the school.

" (*c*) The school shall be open at all times to the inspection of any of His Majesty's Inspectors, so, however, that it shall be no part of the duties of such inspector to inquire into any instruction in religious subjects given at such school, or to examine any scholar therein in religious knowledge or in any religious subject or book.

" (*d*) The school shall be conducted in accordance with the conditions required to be fulfilled by an elementary school in order to obtain an annual parliamentary grant."

Section 2 of the Education Act, 1918, as re-enacted in Section 20 of the Education Act, 1921, made it clear—if it was not clear before—that " education other than elementary " could be given in public elementary schools.

(2) Central School or Class

Central Schools and Central or special classes which are by statute Public Elementary Schools, forming an integral part of the system of Public Elementary Education, are described in Section 20 of the Education Act, 1921 (which repeated Section 2 (1) (*a*) of the Education Act, 1918) as follows:—

" It shall be the duty of a Local Education Authority so to exercise their powers under this Part as to make, or otherwise to secure, adequate and suitable provision by means of Central Schools, Central or special classes, or otherwise—

" (1) for including in the curriculum of Public Elementary Schools, at appropriate stages, practical instruction suitable to the ages, abilities, and requirements of the children; and

" (2) for organising in Public Elementary Schools courses of advanced instruction for the older or more intelligent children in attendance at such Schools, including children who stay at such Schools beyond the age of fourteen."

(3) Higher Education

The expression " Higher Education " was used as the heading of Part II of the Education Act, 1902. The sub-title of Section 2 of that Act is " Power to Aid Higher Education." In Section 2 (1) Higher Education is described as " Education other than Elementary." The phrase " higher education " appears only in the text of Sections 2 (2) and 22 (2) of that Act.

The Act itself, however, refers to " education other than elementary," but in the Education Act of 1921 the phrase " higher education," defined in Section 170 (3) as meaning " Education other than elementary," is used as the heading of Part VI, and in Section 70 of the Act. Section 170 (3) of the Act states that the expression " Higher Education " means education other than elementary education.

This definition should be read in connection with Section 71 of the Act, which runs as follows:—

" The power of a local education authority to supply or aid the supply of higher education under this Act includes:—

" (*a*) the power to train teachers and to supply or aid the supply of any education, other than education in a public elementary school or other school

of a class which a local education authority for elementary education have power under this Act to provide; and

" (*b*) the power to make provision for the purpose outside their area in cases where they consider it expedient to do so in the interests of their area; and

" (*c*) the power to provide or assist in providing scholarships (which term includes allowance for the maintenance) for, and to pay or assist in paying the fees of, students at schools or colleges or hostels within or without that area."

There is no statutory definition of " Elementary Education " and in consequence the statutory definition of " Higher Education " in Section 170 (3) of the Education Act, 1921, is merely negative. The fact is, however, that this definition does not claim to be a definition of what constitutes " Higher Education " or " Elementary Education." It is a strictly statutory definition designed for a particular purpose, and not a dictionary definition. The purpose which it fulfils nearly but not quite completely, is to show what an Authority for " Higher Education " as distinguished from an Authority for " Elementary Education " only may do. A dictionary definition would have been misleading, since it is quite certain that an Authority for " Elementary Education " can give much education which could not properly be described as " elementary " within the meaning assigned to that word in any dictionary.

(4) Secondary School, and Secondary Education

The expression " Secondary School " was borrowed from the French " école secondaire," which was used apparently for the first time in the " Rapport et projet de décret sur l'organisation générale de l'instruction publique," submitted to the Legislative Assembly by Condorçet in April, 1792. His proposal, which never became law, provided for a fivefold classification of education,

(1) écoles primaires, for every village of 400 inhabitants,

(2) écoles secondaires, to be provided by each Department,

(3) Institutes which correspond to what are now called Lycées and Collèges.

It will thus be seen that the term as originally used by Condorçet was intended to describe what would now be called higher primary, or higher elementary Schools. The expression was first employed to describe schools which would now be regarded as " Secondary " in Title 3, articles 6 and following of the Education Law passed under the Consulate in 1802. R. L. Edgworth, who was in touch with the contemporary French educationalists, uses the expression " Secondary School " in his " Essays on Professional Education " (1812).

The phrase " Secondary Education " is used by Dr. Thomas Arnold in letters which he wrote to the *Sheffield Courant* in 1831. It did not, however, come into general use until the fifties and sixties of the last century, when it was frequently employed by Matthew Arnold and other writers. The expression is employed in the Reports of several Royal Commissions on Education, *e.g.* the Report of the Schools Inquiry Commission (1868) and the

Final Report of the Commissioners appointed to inquire into the Elementary Education Acts, England and Wales, 1888. It was first used officially in the Commission dated March 2nd, 1894, constituting the Royal Commission on Secondary Education, and was employed again in Section 3 of the Board of Education Act, 1899, incorporated in Section 134 (1) of the Education Act, 1921, which runs as follows:—

"*Inspection of Secondary Schools, etc.* The Board of Education may, by their officers, or after taking the advice of the consultative committee hereinbefore mentioned, by any university or other organisation, inspect any school supplying secondary education and desiring to be so inspected."

No attempt, however, was made to give a statutory definition of Secondary Education.

The expression "Secondary School" is used in Section 18 (1) of the Education Act, 1918, incorporated in Section 80 (2) of the Education Act, 1921, which runs as follows:—

"A Local Education Authority for Higher Education with respect to children and young persons attending:—(1) Secondary Schools provided by them; . . . shall have the duty to provide for the medical inspection of such children, etc."

(5) Grammar School

The term Grammar School, which had been in common use since the fourteenth century, was defined in trust deeds and school statutes of the sixteenth and seventeenth century as meaning a school in which Latin, or Greek and Latin, and occasionally Hebrew were taught. Dr. Johnson's Dictionary defined Grammar School as a school in which the learned languages were grammatically taught, and Lord Eldon, by his famous judgment in the case of Leeds Grammar School, 1805, gave this definition legal validity from 1805 to the passing of the Grammar School Act, 1840.

Section 25 of the Act provides that the words "Grammar School" shall mean and include all Endowed Schools, whether of Royal or other foundation, founded, endowed or maintained for the purpose of teaching Latin or Greek, or either of such languages, whether Latin or Greek shall be expressly described, or shall be described by the word "Grammar" or any other form of expression which is or may be construed as intending Greek or Latin, whether such instruction be limited exclusively to one of these languages or extended to both or to any other branch or branches of Literature or Science in addition to them, or either of them, and that the words "Grammar School" shall not include schools not endowed, but shall mean and include all Endowed Schools which may be "Grammar Schools" by reputation.

In schemes for endowed Grammar Schools made by the Board during the last twenty years a common-form clause has been regularly inserted to the effect that the school of the foundation shall be conducted as a "public secondary school."

The expression "Grammar School" is sometimes applied at present to Secondary Schools which are almost wholly maintained by the Local Education Authority.

(6) Intermediate School

The term " Intermediate School " has a quasi-statutory basis in Wales, as a School providing " intermediate education," which is defined in Section 17 of the Welsh Intermediate Education Act, 1889, as follows:—

" The expression Intermediate Education means a course of education which does not consist chiefly of elementary instruction in reading, writing and arithmetic, but which includes instruction in Latin, Greek, Welsh and English language and Literature, Modern Languages, Mathematics, Natural and Applied Sciences, or in some of such studies and generally in the higher branches of knowledge."

(7) Continuation School

The expression " Continuation School " is employed in Sections 13, 75, 76, 77, and 80 of the Education Act, 1921, re-enacting the corresponding Sections in the Education Act, 1918. Section 75, sub-section (1) of the Education Act, 1921, runs as follows:—

" It shall be the duty of the Local Education Authority for Higher Education, either separately or in co-operation with other Local Education Authorities, to establish and maintain, or secure the establishment and maintenance under their control and direction of a sufficient supply of Continuation Schools in which suitable courses of study, instruction and physical training are provided without payment of fees for all young persons resident in their area who are under this Act under an obligation to attend such schools."

It appears from Section 76 that the statutory Continuation School was intended in normal circumstances to be a Day Continuation School for young persons between the ages of 14 and 18, as Section 76 (2) expressly provides that such Continuation Schools are not normally to be held between the hours of 7 in the evening and 8 in the morning. Section 170 (4) of the Act defined " young person " as a person under eighteen years of age who is no longer a child.

The ordinary connotation of the term " Continuation School " before the passing of the Education Act, 1918, had varied very considerably. On 18th May, 1893, the Committee of Privy Council on Education had established a Code of Regulations for Evening Continuation Schools which were, of course, part-time schools. On the other hand, in the Report of the Consultative Committee on Higher Elementary Schools, published in 1906, the expression " Day Continuation School " on the analogy of " Evening Continuation School " is suggested as an alternative name for " Higher Elementary School." Nothing came of this suggestion, but had the term been employed in this sense it would have meant full-time schools, unlike the Day Continuation Schools contemplated by Sections 75 to 79 of the Education Act, 1921, which were intended to be part-time Schools for young persons already in employment.

B. Terms which are Now, or in the Past have been, Defined, for Administrative Purposes by the Board of Education, or by the Former Department of Science and Art.

(1) Higher Elementary School

The phrase " Higher Elementary School " was sometimes popularly used to describe the " Higher Grade " Schools established by some of the School Boards between 1871 and 1900. The expression which seems to have been modelled on the French " école primaire superieure," was first used as an official term in the Board's Minute of April 6th, 1900, which provided for a special class of Public Elementary Schools to be known as Higher Elementary Schools, receiving grant on certain conditions set out in the Code for 1901. Only a few schools were recognised under these Regulations, which laid stress on a predominantly scientific curriculum. In Chapter VI of the Code for 1905, the Board modified extensively its earlier Regulations for Higher Elementary Schools. This Chapter continued to appear in successive issues of the Code up to 1918, but the number of Schools recognised under it was never large. In view of Section 2 of the Education Act, 1918, the Board withdrew the Regulations for Higher Elementary Schools in 1919, and so the term ceased to have any official significance, though it is still employed by some Local Education Authorities to describe schools formerly recognised officially as Higher Elementary Schools under the Code up to 1918.

(2) Junior Technical School

This term is used to describe Day Schools recognised under the Regulations for Junior Technical Schools, first drawn up in 1913 and included in the Board's general Regulations for Technical Schools, etc., providing courses for boys and girls during the two or three years after leaving public elementary schools in which a continued general education is combined with definite preparation for some industrial employment. These schools were definitely not intended to provide courses furnishing a preparation for the professions, the Universities, or higher full-time technical work, or again for commercial life; they were meant to prepare their pupils either for artisan or other industrial occupations or for domestic employment. Under the Regulations in force up to 1925, the minimum admission age is 13+, and the courses ordinarily last two or three years. The courses must be planned as a preparation for employment on completion of the course, and not as a preparation for further full-time instruction. The schools hitherto recognised under these Regulations fall into two classes:—(*a*) those in which the practical work is intended to develop a substantial measure of personal craftsmanship; (most schools of this type are popularly known as " Trade Schools "), (*b*) those in which practical work is less definitely directed to the attainment of manual skill.

(3) School of Science or Organised Science School

The Science and Art Department, with a view to encouraging the establishment of Schools giving methodical and systematic instruction in Science, offered attendance grants in 1872, to such Schools and Institutions as adopted one or other of the special Courses formulated in the Science and Art Directory.

These Organised Science Schools as they were called, increased steadily until 1894, when they numbered 112. In order to check the natural tendency for the curriculum of these schools to become unduly developed on the scientific side, the rules in the Science and Art Directory for 1894 required that the Time-Tables of such Schools should provide " for instruction in those literary subjects which were essential for a good general education." In 1895 both the curriculum and the method of payment in schools of Science were modified. New special courses of instruction were laid down, and manual work and instruction in literary and commercial subjects became an integral part of the regular work of the School of Science, to which a certain time had to be devoted, and on which the grants in part depended. There were 187 of these Schools of Science in 1900.

In the Regulations for Secondary Day Schools for 1902-3 and 1903-4, issued by the then newly established Board of Education, the Schools of Science were classed as " Secondary Day Schools (Division A)," and the Grammar Schools were described as " Secondary Day Schools (Division B)."

The distinction between Division A and Division B Schools disappeared in the Regulations for Secondary Schools for 1904-5, which are the archetype of those in operation at the present time.

It will thus be seen that the existing Regulations for Secondary Schools have grown up round the old provisions of the Science and Art Directory. The sporadic Science Classes, which had been formed, were gradually built up into Schools of Science, and after 1901 these Schools of Science were expanded into Schools of the so-called " Division A " type.

(4) Preparatory School

This expression is generally understood as meaning a boarding school or a day school which prepares boys for entrance to the Public Schools and the Navy, and girls for admission to the larger endowed and proprietary schools for girls. The first preparatory school for boys was founded in 1837. They are for the most part private schools, and the expression " Private School " is sometimes used as equivalent to " Preparatory School " in contradistinction to Public School. From 1917 to 1925 the Board of Education defined preparatory school in Chapter IX of their Regulations for Secondary Schools as " A school which provides an education of the same kind and quality as that contemplated by Article 1 (of the Regulations), for pupils of an age range at least as wide as from 9 to 13, and from which pupils normally proceed to continue their education at some Secondary School or other similar institution."

C. Terms of Art Used by the Board of Education, the Charity Commission (up to 1900), the Local Education Authorities, Governors of Endowed Schools, Teachers and other Persons Interested in Education.

(1) Primary School and Primary Education

The term " Primary School " has never had any statutory authority in England, and was borrowed directly by writers on education from the French " école primaire," an expression which was first used in the schemes of

national education presented to the Constituent Assembly by Talleyrand-Périgord in September, 1791, and to the Legislative Assembly by Condorcet in April, 1792. The phrase first became statutory in France in 1802, when it was used in the Education law of that year to describe the lowest grade of schools in contradistinction to the écoles secondaires. This term and the expression "primary education" derived from it gradually came into use in England and are employed in the Reports of several of the Royal Commissions on Education, *e.g.* the Final Report of the Cross Commission (1888).

(2) Higher Grade School

"Higher Grade School" was a name which gradually came to be applied to certain schools established between 1871 and 1900 by some of the School Boards, especially those in large towns such as Bradford, Sheffield, Birmingham, and Huddersfield. Such Schools aimed at continuing the education given in the ordinary Elementary Schools to children able to assimilate more advanced instruction. These schools often took the form of Organised Science Classes or Schools working under the regulations devised for such Science Schools by the Science and Art Department in 1872. That Department provided an additional source for obtaining State aid, and further was able to make grants at a higher rate than the Education Department in Whitehall. As a result higher elementary education, so far as it was provided by these Higher Grade Schools, tended to assume a predominantly scientific character, though this tendency was to some extent corrected by the Science and Art Department in its Directory, issued in 1894, which stated that in preparing the time-table "provision should be made for instruction in those literary subjects which were essential for a good general education." In the case of Rex. *v.* Cockerton, C.A. (1901), 1 K.B. 726, it was decided that it was not "within the powers of a (School) Board as a statutory corporation to provide science and art schools or classes (of the kind referred to in this case) either in the day schools or in evening continuation schools out of the school board rate or school fund." The schools or classes referred to were schools or classes which provided education of the nature prescribed by the Directory of the Science and Art Department. Pending the coming into operation of the Education Act, 1902, School Boards, which had in fact provided such schools and classes, were allowed to continue to do so by the Education Act, 1901, on the terms therein prescribed. When the Board of Education, under the Minute of April, 1900, issued special Regulations for Higher Elementary Schools some of the Higher Grade Schools were converted into Higher Elementary Schools.

Others, after the passing of the Education Act, 1902, became Secondary Schools. The term "Higher Grade" still survives in the local names of a few Public Elementary Schools. The name was derived from the six (and after 1882 seven) standards or grades, which were described in successive Codes of the Education Department from 1861 to 1892. Other names given to such schools between 1871 and 1900 were "higher board school." "advanced elementary school," "higher standard" or "seventh standard school," "higher elementary school," "higher central school."

(3) Higher Top

This term was employed colloquially to describe the higher classes which developed at the top of some of the Elementary Schools. It was used unofficially in some parts of England during the period from 1900 to 1918, when the Regulations for Higher Elementary Schools were in operation, in order to describe Post-Primary Classes, which were not working under those Regulations. Since 1918 many " higher tops " have been organised in the Elementary Schools in Durham County.

(4) Senior School

The phrase " Senior School " is employed by some Local Education Authorities as a term of art to describe schools for children between the ages of 11+ and 14+ who have not obtained free places for secondary schools, nor secured admission to a selective Central Elementary School. In current educational parlance " Senior School " is frequently used to describe the Senior Department of an ordinary Public Elementary School.

(5) Preparatory Department

Schemes for Endowed Schools for Boys and for Girls made by the Charity Commission, and after 1900 by the Board of Education, frequently provide that the Governors may, if they think fit, maintain in the School a Preparatory Department or Kindergarten, for the education of children whether boys or girls, under the age of 7 or 8 or 10 years. The age limit varies in different schemes. The term " Preparatory Department " is not explicitly mentioned in the Board's Regulations for Secondary Schools, but was implicitly recognised up to 1925 in Article 1 of those Regulations, which stated that provision made for pupils below the age of 12 must be similarly suitable and in proper relation to the work done in the main portion of the School.

(6) High School

In Scotland the term High School has been used since the fifteenth century to describe certain ancient Endowed Secondary Schools, *e.g.* the High Schools of Edinburgh and Glasgow.

In England the expression was occasionally used for Boys' Schools, *e.g.* Thomas Hersley, Mayor of Newcastle-upon-Tyne in 1526 and 1533, bequeathed certain property for the endowment of a " Hye School." The School in question, however, was generally known as the ancient Free Grammar School.

More modern examples of the use of the name in England for Boys' Secondary Schools are the Nottingham High School and the Newcastle-under-Lyme High School. The term did not come into general use till after 1869, when, as a result of the movement for providing higher education for girls, which received a great impetus from the recommendations on the subject in the Report of the Schools Inquiry Commission (1868), numerous Secondary Schools for Girls, known as High Schools were established, especially in the large towns, partly by local organisations and partly by corporations such as the Girls' Public Day School Company, founded in 1872. When by the Education Act, 1902, Counties and County Boroughs were vested with

powers to provide Secondary Schools, a number of these new County and Municipal Secondary Schools for Girls were named County High Schools.

(7) Middle School

The continental usage of this term varies very considerably. In some of the German States, *e.g.* Prussia, " Mittelschule " means a School intermediate in type between the Elementary School (Volkschule) and the Secondary School (Höhere Schule). In Czechoslovakia " Středna Škola," *i e.* Middle School, means a Secondary School.

In England the term appears to have first come into use about 1840 to describe a type of school intermediate between the ancient Grammar Schools, with their predominantly classical curriculum, and the Elementary Schools, which had been established in large numbers during the preceding decades by the National Society, the British and Foreign School Society, and other organisations and individuals. For example, about 1845, the National Society established some superior " Middle " Schools attached to their existing Normal Schools; *e.g.* a Middle School was founded at York, attached to the Training College, which included in its curriculum Latin and also subjects of practical value, such as Mensuration. Such Schools, which were often called Middle-class Schools, or Trade Schools, were established in increasing numbers after the publication of the Report of the Schools Inquiry Commission (1868), which recommended that three grades of secondary schools were required: (*a*) First Grade Schools, with a leaving age of 18 or 19, closely associated with the Universities, which would teach Greek as well as Latin; (*b*) Secondary Schools with a leaving age of 16 or 17, which would teach two modern languages, besides Latin; (*c*) Third Grade Schools, with a leaving age of 13 or 14, which would teach the elements of French and Latin. In order to facilitate the provision of such third Grade Schools, the Endowed Schools Commission (1869-1874), and later the Charity Commission, in which the powers of the former Commission were merged in 1874, sometimes included in their Schemes for Endowed Schools clauses authorising the Governors to establish a Middle, sometimes called a Modern or Commercial or Trade School, which should occupy an intermediate position between the ordinary primary schools and the ancient School of the Foundation.

The number of schools, which are still termed Middle Schools, is not large. Some local authorities established Middle Schools which were converted into Municipal Secondary Schools after 1902. In the last few years, the expression " Middle School " has been brought into use in the areas of some Education Authorities, *e.g.* the West Riding of Yorkshire, as a name for Central Schools.

(8) Commercial School

Many of the private schools established in the eighteenth and nineteenth centuries, more especially those in towns, were known as commercial schools or academies. The curriculum of the better schools of this type was quasi-secondary in character, including French, bookkeeping, and commercial arithmetic.

About 1845, it was realised in some quarters that there was a need for a type of school intermediate between the Grammar Schools, with their predominantly classical curriculum, and the primary schools which had been established in large numbers by the National Society, the British and Foreign Schools Society, and other organisations. For example, a Commercial School was established at Manchester by the Manchester Church Education Society in 1846, which provided a modern curriculum including French, German, and Drawing. Such "Commercial" or "Middle" Schools fell within the category of Third Grade Schools with a leaving age of 14 or 15, described in the Report of the Schools Enquiry Commission (1868). The Schemes for Endowed Schools made by the Endowed Schools Commission (1869-1874), and subsequently by the Charity Commission, in which the former Commission was merged in 1874, sometimes authorised the Governors of Endowed Schools to establish a "Commercial School" or "Middle School," which would provide a more modern and utilitarian curriculum than that of the ancient School of the Foundation.

(9) Junior Commercial School (or Course)

A few Schools of this type are recognised under the Board's Regulations for Further Education, but such Schools, or Lower Commerce Courses, though in a sense parallel to Junior Technical Schools as they afford provision for continued general education, have been hitherto regarded as having a provisional rather than an established place in the public system of education, inasmuch as they can hardly be viewed as supplying an educational need which could not be substantially met, as the system of Secondary Schools and Central Schools and Classes is fully developed, particularly as there is ample provision for part-time instruction in the technicalities of office work of various kinds in the Evening School system in every large town.

These schools, which were often described unofficially as "Junior Commercial Schools," are now in the Schedule to the Board's Regulations for Further Education, 1926, included under the category of Junior Technical Schools.

(10) Full-Time Day Technical Classes for Junior Pupils, held in the premises of Technical Schools and Technical Institutes

In the Board's Regulations for Technical Schools for 1905-6, grants were offered in aid of organised courses of instruction designed for students devoting a large part of their time to studies in preparation for their life work. Among the arrangements fostered by those grants were full-time schools offering courses that could be completed about the age of 16, some industrial in outlook, some commercial, and some domestic. From 1913 onwards full-time courses for junior pupils having special reference to artizan occupations or to employment in domestic service were recognised as Junior Technical Schools. The full-time Schools in other groups, which may be conveniently described as Junior Commercial Schools and Domestic Economy Schools, though these terms were not used in any official Regulations, were administered up to 1925 under the general power of the Board to recognise organised Day Courses

" adapted to the technical requirements of the students " (Article 42 of the Regulations for Technical Schools, 1925). In the Schedule to the Board's Regulations for Further Education, 1926, the Domestic Economy Schools are described as " Junior Housewifery Schools " providing domestic and (at least for those under exemption age) general instruction in full-time courses extending at least to the exemption age. Short full-time Courses, both vocational and domestic, are provided in Technical Day Classes for pupils over the exemption age.

(11) Trade School

The more specialised Junior Technical Schools, in which the practical work is intended to develop a substantial measure of personal craftsmanship, especially those in the London area, are popularly known as Trade Schools, *e.g.* the L.C.C. Shoreditch Junior Technical School for Boys, specialising in Cabinet-making and Workwork trades; the Holborn L.C.C. Trade School for Girls, Queen's Square, W.C. 1, specialising in Dressmaking, Millinery, Photography.

(12) Full-Time Junior Art Departments, Held in Schools of Art

Provision was first made for the payment of grant to Junior Art Departments, which at that time were called Preparatory Departments, in the Regulations for Technical Schools for 1913, but no Junior Art Departments were in fact recognised until 1916. Up to the present, 29 such Departments have been recognised. The courses in these Departments conducted in the premises of Schools of Art include as a rule at least 12 hours' general education per week.

(13) Private School

" Private School " is generally used as meaning a school, whether elementary or secondary in character, which is conducted for private profit.

The expression has been in use since the seventeenth century, and was employed in some of the Acts of the Restoration Parliament. The term has not, however, been used by the Legislature in recent Education Acts, though it is evident that private schools are included within the purview of Section 155 of the Education Act, 1921 (re-enacting section 28 of the Education Act, 1918), which provides for the collection of information respecting " schools or educational institutions not in receipt of grants from the Board of Education."

APPENDIX II (see Chapter XIII)

TYPICAL TEST PAPERS

The first four papers were set in 1929. There are two Arithmetic papers, and two English papers. (The picture referred to in Paper B was one of a ship leaving a pier and people waving "good-bye.")

A. Arithmetic (Paper A)

Time, 9.15–9.50 a.m.

Here are 14 sums; answer as many as you can.

Follow carefully the instructions given on your answer book.

1. Multiply 37 by 29.
2. Write down the product of 3·7 and 0·29.
3. Find 10% of £65 4s. 2d.
4. Add $1\frac{2}{3}$ to $4\frac{1}{4}$.
5. Simplify ($1\frac{3}{8} + 3\frac{2}{3}$).
6. Express 4s. $1\frac{1}{2}$d. as a decimal of 5s.
7. By how much is ten shillings greater than the difference between 7s. 3d. and 3s. 7d. ?
8. How many pints must be added to 11 pints to make $2\frac{1}{2}$ gallons ?

Find the values of:

9. $7\frac{1}{2}$ yards at $1\frac{1}{2}$d. a foot.
10. $5\frac{1}{4}$ lb. at 1s. 7d. a lb.
11. $11\frac{1}{2}$ gallons at 1s. 5d. a gallon.
12. 5 miles equal 8 kilometres; how many kilometres equal 8 miles ?
13. If a man paid back at the rate of £6 10s. 0d. for each £5 that he borrowed, what did he pay back for a loan of £10 5s. 0d. ?
14. If the weight of a tin is one-tenth of the weight of the chocolate which it contains, what is the weight of the chocolate contained in a number of such tins whose total weight when full is 16 lb. 8 oz ?

B. English (Paper A). (Essay)

Time, 10.0–10.40 a.m.

Answer *one* of the questions A *or* B.

A. Write a story suggested by the picture on the opposite page.

B. "A piper in the streets to-day
Set up and tuned and started to play,
And away, away, away on the tide
Of his music we started; on every side
Doors and windows were opened wide."

Continue this story.

C. Arithmetic (Paper B)

Time, 11.0–11.40 a.m.

You may answer as many of these questions as you can.

Cross out *boldly* any work you do not wish the examiner to notice.

1. A lorry with 120 bricks in it weighs 28 cwt., and with 360 bricks in it weighs 44 cwt.

(*a*) What is the weight of the lorry unladen ?

(*b*) How many bricks weigh 1 cwt. ?

2. A flag 8 feet long and 5 feet wide consists of four equal red oblongs (one at each corner) separated by white bands 1 foot wide.

(*a*) Draw a sketch of the flag.

(*b*) Find the area in square feet of the white portion of the flag.

3. A pile of forty halfpennies is two inches high and one inch across.

(*a*) How many such piles of halfpennies could be put in a box 4 inches long, 3 inches wide and 2 inches high ?

(*b*) What would be the value of all the halfpennies in the box ?

4. On December 15th, 1927, John put one shilling in the bank. On the 1st and 15th of the first three months of 1928 John put in the bank as many shillings as he had already in the bank on that day. How much money had John in the bank on 16th March, 1928 ?

5. If Mary reached work at 8.45 a.m. she was a certain number of minutes early. If she reached work at 9.15 she was twice that number of minutes late. How many minutes was she late if she reached work at 9 a.m. ?

6. A field 80 yards long by 50 yards wide was enlarged by adding 20 yards to its length and 20 yards to its width.

(*a*) How long and how wide was the larger field ?

(*b*) If the small field was worth £400, how much was the larger field worth ?

(*c*) If the fencing for the small field cost £65 how much extra was spent for extra fencing for the larger field ? All the old fencing was used.

D. English (Paper B)

Time, 11.50 a.m.–12.25 p.m.

You may answer all the questions.

1. Read the following:

The next race on the programme was " The Noah's Ark for animals and birds of sorts." The starters were: An ostrich driven by John, a turkey driven by William, a pig driven by Sam, a cat driven by Mary, a monkey driven by Fred, and a dog driven by Susan. The ostrich won one of the queerest races on record by 20 yards. The ostrich started well, closely followed by the pig and turkey. The dog made a dash forward, but the porker collided with him and he gave up all idea of winning and went straight for piggy's ear. The porker shook him off, but he fastened on to piggy's tail and came in a good third. The monkey once looked like winning, but the cat jumped

on his back and both animals broke away from their drivers and made straight for the village, putting the turkey out of the race as they careered across his path.

Answer the following:

(*a*) Who drove the winner ?

(*b*) Which animal was second ?

(*c*) What is meant by " queerest," " collided," " careered " ?

(*d*) Why was the race given its odd title ?

2. Read the following:

Four blind men were placed each at a corner of a square. They were told to go forward with arms outstretched, seize hold of the first thing they touched and say what it was. The first said, " It is like a spear," the second " It is like a snake," the third " It is like a fan," the fourth " It is like a rope."

The men were then brought together and told that they had all touched the same object. This led to a discussion: What was the object ?

Each held to his opinion and the argument waxed fierce. Suddenly the loud trumpeting of an animal was heard and all four exclaimed as with one voice—" Why, it's an elephant."

Write, using the words you think the men actually said, the argument, and its conclusion.

Begin thus:

The first said, " What I felt was smooth and sharp-pointed, it was . . . "

3. Use *two* of the following words in the same sentence. Write four such sentences. None of the words is to be used more often than once.

Heated, ornaments, horizon, grim, murmur, silence, awkward, jingling, confused, destruction.

Some papers set by an English Authority follow and are lettered E to I inclusive. These were set in 1936. The examination was composed of (*a*) a qualifying examination, and (*b*) a selective examination. All those who reached a certain standard in the first examination went forward to the second.

E. ENGLISH

Qualifying Examination

Time, 50 minutes.

All your answers are to be written on this paper in the spaces provided.

1. Look carefully at these three columns:

1 *Word*	2 *Same Meaning*	3 *Opposite Meaning*
Strong.		
Foolish.		
Pleasant.		
Unhappy.		
Brisk.		

From the following list fill up column 2 with the *five most suitable* words and column 3 with the *five most suitable* words: powerful, nasty, weighty, frail, stupid, comfortable, delightful, lazy, sweet, conceited, energetic, distressed, wise, contented.

2. In the following paragraph, wherever you see three words in brackets, *underline* the *one* word which you think *correct:*

Mrs. Brown had (give, gave, given) sixpence to Mary, Jack and Tom because they (were, was, been) going to the Fair. But Jack and Tom were greedy, and when they had (eat, ate, eaten) their own sweets, they turned to Mary and (ask, asks, asked) for some of (hers, her's, her). When the children (come, comes, came) home, Mrs. Brown (asks, asked, ask) Mary why she (were, was, been) sad; but Mary would not (speak, spoke, spoken) about it. " I am afraid," said Mrs. Brown, " that neither Jack nor Tom (as, has, have) been kind."

3. Making up questions. Write down on this paper the question you would ask in *each* of these *four* cases:

(*a*) Of a policeman; if you were at the railway-station and wanted to find your way to the Market Place.

(*b*) Of a bus-conductor; if you wanted to know at what time his bus reached the town.

(*c*) Of a grocer; if you wanted to know whether he sold lump-sugar in one-pound packets.

(*d*) Of your mother; if you wanted to know whether she was taking you out that afternoon.

4. Here is a list of words:

Dead, drowned, drowning; deep, deeply; leisure, leisured, leisurely; quick, quickened, quickly; steadily, steady; steep, steeping, steeply; stoned, stony, stonily; sudden, suddenly.

Now fill up the blanks in the following story with the *ten most suitable words* from the list, using each word *once* only:

One afternoon Pedro, a fine St. Bernard dog, was walking in a —— way with his master along the —— banks of the River Dare. The River is —— and runs —— at that point. —— there was a splash and a cry; a man had fallen into the water. " ——, Pedro ! " cried his master. For one moment the dog held himself —— on the edge of the stream; then he made a —— plunge into the water and with a few strokes —— brought the —— man safely to the shore, where he soon recovered.

5. Complete the following sentences:

(*a*) Mr. Smith is Mary's uncle; Mary is his ——.

(*b*) Miss Williamson is my teacher; I am her ——.

(*c*) Dr. Gray is Mr. Brown's doctor, Mr. Brown is his ——.

(*d*) His Majesty Edward VIII is our king; we are his ——.

(*e*) Mr. Pòtter is my grocer; I am his ——.

F. ARITHMETIC

Qualifying Examination

Time, 1 hour.

You may attempt all the questions.

You will receive more marks if you can show the working. Do rough work in the margin.

1. Divide the sum of 245 and 199 by the difference of 200 and 163.

2. Add 2 tons 3 cwts. 3 qrs. 1 stone 10 lbs. and
 1 ton 19 cwts. 2 qrs. 1 stone 6 lbs.

3. What is the cost of 120 yards of cloth at 3/4½d. per yard ?

4. An oblong field has an area of 15 acres. If it is 200 yards in breadth, what is its length ? (1 acre—4840 sq. yds.)

5. I buy a new car by paying £100 and giving my old car to the motor dealer. The marked price of the new car is £185 and the dealer would have made £48 profit had he sold it at this price. At what price must he sell my old car to make £25 profit ?

6. 294 gallons of milk make a seventh of this volume of condensed milk. The condensed milk is put into ¼ pint tins. How many tins will be required ?

7. I walk 16 miles at 4 miles an hour. A friend who cycles starts at the same time as I start and finishes 2 hours before I finish. How fast does he cycle ? (In miles an hour.)

8. If I add six to the ninth of a certain number I get 13. What is this number ?

G. ENGLISH

Selective Examination

Time, 50 minutes.

All your answers to be written on this paper in the space provided.

1. Read this story carefully:

As soon as I got to the river side I liked it even less than I thought I should. It was muddy, being near its parent glaciers. The stream was wide, rapid and rough, and I could hear the smaller stones knocking against each other under the rage of the waters, as upon a seashore. Fording was out of the question. My only chance was to make a small raft; and that would be difficult to make, and not at all safe when it was made—not for one man in such a current.

Next day I began gathering the dry bloom stalks of a kind of flag or iris-looking plant, which was abundant, and whose leaves, when torn into strips, were as strong as the strongest string. I brought them to the water-side, and fell to making myself a kind of rough platform. The stalks were ten or twelve feet long, and very strong, but light and hollow. I made my raft entirely of them, binding bundles of them at right angles to each other, neatly and strongly, with strips from the leaves of the same plant, and tying

other rods across. It took me all day until nearly four o'clock to finish the raft, but I had still enough daylight for crossing, and resolved on doing so at once.

I had selected a place where the river was broad and comparatively still, some seventy or eighty yards above a furious rapid. At this spot I had built my raft. I now launched it, keeping in my hand one of the longest blossom stalks, so that I might punt myself across as long as the water was shallow enough to let me do so. I got on pretty well for twenty or thirty yards from the shore, but even in this short space I nearly upset my raft by shifting too rapidly from one side to the other. The water then became much deeper, and I leaned over so far in order to get the bloom rod to the bottom that I had to stay still, leaning on the rod for a few seconds. Then, when I lifted up the rod from the ground, the current was too much for me and I found myself being carried down the rapid. Everything in a second flew past me, and I had no more control over my raft; neither can I remember anything except hurry, and noise, and waters which in the end upset me. But it all came right, and I found myself near the shore, not more than up to my knees in water, and pulling my raft to land, fortunately upon the left bank of the river, which was the one I wanted.

Now answer these questions.

(*a*) About what time did he begin to cross the river ?

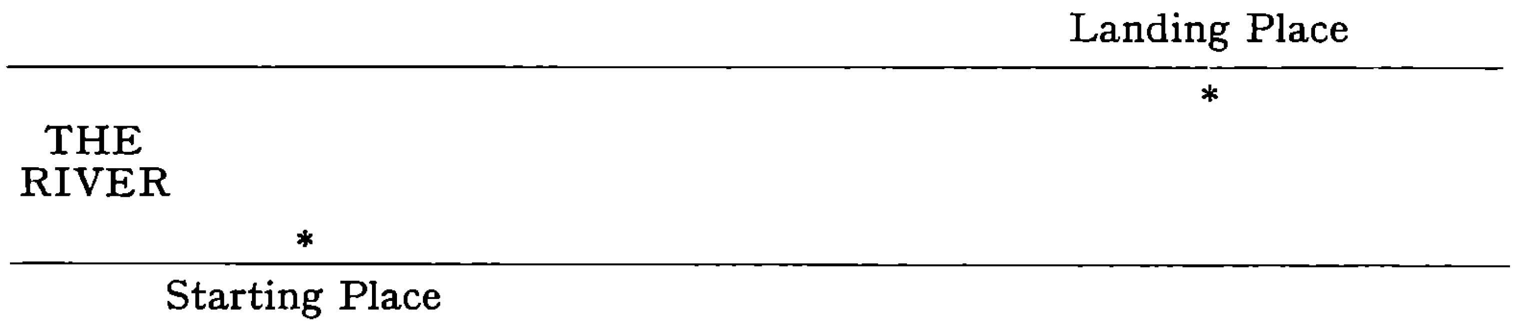
(*b*) (1) Was the water near the shore deep or shallow ?
(2) How do you know this ?

(*c*) How did he lose control over the raft ?

(*d*) (1) From which bank of the river did he start—right or left ?
(2) How do you know this ?

(*e*) (1) Was the river in hilly or in flat country ?
(2) How do you know this ?

(*f*) Look at this plan:



(1) Put a letter R where you think the rapid was.
(2) Put an arrow (↑) pointing the way the river was flowing.

2. Here is a list of words. In the story in Question 1, find a word that has the same meaning (or nearly the same) as each word in this list:

(1) Chosen.
(2) Plentiful.
(3) Constructed.
(4) Crude.
(5) Wholly.
(6) Secure.
(7) Determined.
(8) Recollect.

3. Here is a list of words:

Where, whence, who, whither, why, whom, when, which, what, whenever, whatever, wherever.

From this list find a suitable word and write it in each blank in the following sentences:

You may use a word more than once.

(1) Will you tell me —— gave you this book?

(2) This is the man —— I saw near the school.

(3) The terrier —— Tom bought the other day now follows him —— he goes.

(4) The man —— we met is a stranger; do you know —— he has come from?

(5) In this game you must do —— the leader is doing, and —— he commands you must be ready to do.

4. In the following paragraph, wherever you see five words in brackets, underline the *one* which you think is most *suitable:*

Some children are afraid of the policeman, because he is (always, sometimes, usually, occasionally, intermittently) a strong, well-built man, who has to be (brutal, severe, bullying, ferocious, inhuman) with those who do wrong. But so long as we do not (destroy, shatter, harm, annihilate, break) the law, it is foolish to be afraid of him, as he is there to (shelter, patronise, protect, watch, cherish) us when we are in (danger, despair, sorrow, suffering, want), and to (command, consider, advise, order, enjoin) us when we are in (affliction, misunderstanding, annoyance, trouble, vexation).

H. Arithmetic

Selective Examination

Time, 50 minutes.

You may attempt all the questions.

You will receive more marks if you can show the working. Do rough work in the margin.

1. From the sum of ·3 and ·325 subtract $\frac{1}{8}$.

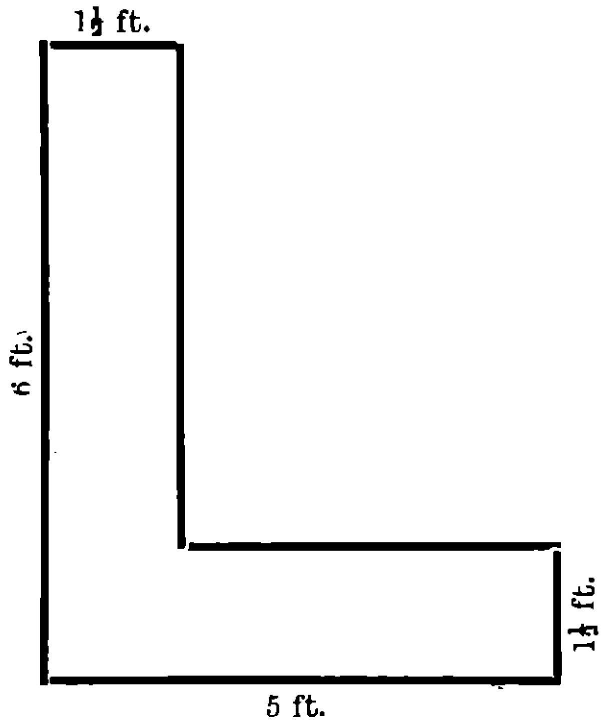
2. Find the cost of 2 qrs. 1 stone 5 lbs. at 3 lbs. for 2d.

3. An airman leaves England at 12 minutes past 4 on Tuesday morning and arrives in Australia at half past ten on Friday night. How long did he take in hours and minutes?

4. A boy goes on a journey of 15 miles. He begins by cycling at 12 miles an hour, but after $\frac{3}{4}$ of an hour his bicycle is punctured and he completes the journey on foot taking an hour longer than if he had cycled the whole way. How fast does he walk? (in miles an hour).

5. From a plank 4 yards long I cut 7 pieces of wood each 18″ long but before doing this I have to remove 3″ from each end of the plank as the ends are damaged. What is the length of the piece I have left finally?

6. I make jam with 20 lbs. of sugar at 3d. a pound and 24 lbs. of fruit at 4d. a pound. 4 lbs. is lost in boiling and I sell the jam at 9d. a pound. What is my total profit?

7. 

The figure represents a large L (from an advertisement sign), the height of which is 6 ft., its length along the bottom 5 ft. and the width 1½ ft. Find the cost of painting it at 4d. a square foot. Also find the distance round the figure.

8. I buy a second hand piano for £31 10s. and spend £6 5s. 6d. in repairing it. I advertise it for sale, but finally accept 30/- less than I asked for it. Even so, my profit is £10 5s. 0d. At what price did I advertise it ?

I. ARITHMETIC—SPEED AND ACCURACY

Selective Examination

Time, 10 minutes.

1. 122 − 95 + 19.

2. What fraction of a gallon is 2·5 pints ?

3. $\frac{1}{4} + \frac{1}{3} - \frac{1}{2}$.

4. I have £1 and I buy 7 books at 1/3d. each. How much have I left ?

5. What is a third of a quarter of a shilling ?

6. Divide 1331 by 11 and multiply your result by 9.

7. A man cycles at 12 miles an hour. How many minutes does he take for a journey of 1½ miles ?

8. Eggs are 1/3d. a dozen. What is the price of a hundred ?

9. Electricity is 4½d. per unit. I use 120 units in a month. How much do I pay ?

10. How many nineteenths in $3\frac{11}{19}$?

11. How many rashers of bacon $\frac{3}{16}''$ thick can be cut from a piece 4½″ across ?

12. How many seconds are there in a lesson of three quarters of an hour?

The following set (lettered J-L) are from the same Borough and were set in 1940. An intelligence test was also given, but that is not reproduced. It should be noticed that the marking of these

papers is entirely objective. In the English test the following times were allowed:—

Exercise 1 20 minutes.
Exercise 2 15 minutes.
Exercise 3 15 minutes.
Exercise 4 10 minutes.

This gives a total of 60 minutes. For the spelling 10 minutes was allowed. For Arithmetic Test I 50 minutes was allowed, and for Arithmetic Test II 30 minutes. The instructions to the markers are also reproduced.

J. ENGLISH

Exercise 1

1. *Read the following:*

The Red Indians chiefly live in tents made of skins of wild animals. These tents are called wigwams. They are light, and can easily be taken down and put up again when the Indians are on the move. Although the wigwams seem so frail, they give good shelter against the wind, the rain, and the snow.

Now underline the proper answer to each of the following questions:

(*a*) Does this story tell you that the Red Indians are warlike?
(Yes: No: I don't know.)

(*b*) Does this story tell you that the winters are cold in the land of the Red Indians?
(Yes: No: I don't know.)

(*c*) Does this story tell you that the Red Indians live in North America?
(Yes: No: I don't know.)

(*d*) Does this story tell you that the Red Indians live a roving life?
(Yes: No: I don't know.)

(*e*) Does this story tell you that the Red Indians hunt animals?
(Yes: No: I don't know.)

2. *Read the following:*

Clear the brown path, to meet his coulter's gleam!
Lo! on he comes, behind his smoking team,
With toil's bright dewdrops on his sunburnt brow,
The lord of the earth, the hero of the plough!
First in the field before the reddening sun,
Last in the shadows when the day is done,
Line after line, along the bursting sod,
Marks the broad acres where his feet have trod.

Now underline the correct answer to each of the following questions:

(*a*) Who is described in this poem?
(a sailor: a ploughman: a miner.)

(*b*) How do you know that his work is hard ?
(because he is dirty: because he is tired: because he is sweating.)

(*c*) When does he work ?
(in the afternoons: when the sun is shining: all day.)

3. *Read the following:*

Asclepius, the son of Apollo, was honoured by the Greeks as the first to cure diseases. He displeased the gods, however, who did not wish that men should thus escape death. He was therefore killed by a thunderbolt. Such was his fame that many years later, the Romans placed him among their own gods and treated with respect all those who were descended from him on the ground that they alone were skilled in the art of healing.

Now underline the correct answer to each of the following questions:

(*a*) How was Asclepius killed ?
(by a thunderbolt,
by a disease,
by the Romans)

(*b*) Why was Asclepius respected by the Greeks ?
(because he cured diseases,
because he was the son of Apollo,
because he was killed by a thunderbolt)

(*c*) Why were the gods displeased ?
(because they were envious of Asclepius,
because the Greeks hated them,
because they wished men to die)

(*d*) Who was made a god by the Romans ?
(Asclepius: Apollo: Thunderbolt)

(*e*) Why did the Romans honour the descendants of Asclepius ?
(because they wished to please the Greeks,
because they believed that they could cure diseases,
because they worshipped Apollo).

4. *Read the following:*

We live on the odd-numbered side of the street. On one side of us lives a little girl named Jane, and next door on the other side of us live John and Annie. We have two children, Jill and Ronald.

Now underline the correct answer to each of the following questions:

(*a*) What is the name of the girl who has no brother ?
(Jane: Annie: Jill)

(*b*) How many children are mentioned altogether ?
(four: five: six: seven)

(*c*) If my house number is 29, what are the numbers of our two neighbours' houses ?

(26, 27, 28, 29, 30, 31, 32, 33).

5. *Read the following:*

Dark is the stair, and humid the old walls
Wherein it winds, on worn stones, up the tower.
Only by loophole chinks at intervals
Pierces the late glow of this August hour.

Two truant children climb the stairway dark,
With joined hands, half in glee and half in fear;
The boy mounts brisk, the girl hangs back to hark
If the gruff sexton their light footstep hear.

Dazzled at last they gain the belfry-room.
Barred rays through shutters hover across the floor,
Dancing in dust; so fresh they come from gloom
That breathless they pause wondering at the door.

Now underline the correct answer to each of the following questions:

(*a*) What are the children doing ?
(going to bed: climbing a tower: playing hide and seek)

(*b*) What is the time of day in this story ?
(the morning: the afternoon: the evening)

(*c*) Why are the children treading lightly ?
(so that they won't tire themselves,
so that they won't fall,
so that the sexton won't hear them)

(*d*) How do we know that the tower is a church tower ?
(because there is a belfry-room,
because it is dark,
because there are loopholes in the walls)

(*e*) Why are the children dazzled when they look into the belfry-room ?
(because it is dusty,
because they have been in the dark,
because they are breathless)

(*f*) How many people are mentioned in these verses ?
(one, two, three, four).

6. *Read the following:*

John noticed that if he ate meat late in the day, he always dreamed after it. The eating of pastry sometimes had the same effect, but light foods such as fruit or a cereal never affected him. John's family never ate meat on Fridays. One night (after a swimming lesson) John dreamed that he was drowning in a sea of porridge.

Now answer these questions with reference to the night when John dreamed about drowning in a sea of porridge:

(*a*) Had John been swimming that day ?
(Yes: No: He may have been)

(*b*) Was it Friday night ?
(it was: it was not: it may have been)

(*c*) Did John have porridge for supper that night ?
(Yes: No: He may have had)

(*d*) Did John have pastry for supper that night ?
(Yes: No: He may have had).

7. *Read the following:*

I can travel by train from my town by either the London, Midland and Scottish Railway, or by the London and North Eastern Railway. If I take an L.M.S. train, I must travel from the Central (L.M.S.) Station; if I travel by L.N.E.R. I must start either from the Central (L.N.E.R.) Station or the Market Place Station according to my destination. I cannot get to certain places by rail and to reach them I must travel by bus. There are three bus stations in my town.

Now underline the proper answer to each of the following questions:

(*a*) How can I travel from my town ?
(by bus only: by rail only: by bus or rail).

(*b*) How many railway companies have stations in my town ?
(one: two: three: four: five: six)

(*c*) How many railway stations are there in my town ?
(one: two: three: four: five: six)

(*d*) From how many stations in my town can I travel ?
(one: two: three: four: five: six)

(*e*) Does this paragraph show that trains are better than buses ?
(yes: no: I don't know).

8. *Read the following:*

When you sign your name you should never put Mr. or Mrs. with it. A man's name is William Smith and his wife's christian name is Elizabeth.

Now underline the proper answer to the following question:

How should the woman sign her letters ?
(Mrs. Smith: Elizabeth Smith: Mrs. William Smith).

Exercise 2

1. *Read the following list of words. Some of them are names of things you would expect to find in a " library," others are names of things you would expect to find in a " park," others are names of things you would expect to find in a " farmyard."*

After each word write " l " or " p " or " f " or " x " in the brackets:
" l " if the word names things you would expect to find in a library.
" p " if the word names things you would expect to find in a park.
" f " if the word names things you would expect to find in a farmyard.
" x " if you don't know the word.

lawns ( ); books ( ); dictionaries ( ); magazines ( ); rockeries ( ); conservatories ( ); churns ( ); mangels ( ); ploughs ( ); newspapers ( ); shrubberies ( ); lakes ( ); catalogues ( ); harrows ( ); encyclopaedia ( ); fountains ( ); stacks ( ); hoes ( ); directories ( ); pitchforks ( ).

2. *Read the following list of words. Some of them concern* " talking," *others concern* " seeing," *others concern* " walking."

After each word write " t " or " s " or " w " or " x " in the brackets:

" t " if you think the word is about talking,

" s " if you think the word is about seeing,

" w " if you think the word is about walking,

" x " if you don't know what the word is about.

look ( ); shout ( ); tramp ( ); perceive ( ); behold ( ); mutter ( ); trip ( ); stroll ( ); perambulate ( ); observe ( ); converse ( ); mumble ( ); whisper ( ); peer ( ); slouch ( ); strut ( ); saunter ( ); squint ( ); spy ( ); gaze ( ); lisp ( ); discourse ( ); view ( ); recite ( ); descry ( ); recognise ( ); chatter ( ); articulate ( ); march ( ); pace ( ).

3. *Read the following list of words. Some of them could be used to describe a boy or girl who is* " idle," *others could be used to describe a boy or girl who is " thrifty," others could be used to describe a boy or girl who is* " cheerful."

After each word write " i " or " t " or " c " or " x " in the brackets:

" i " if you think the word describes an idle boy or girl.

" t " if you think the word describes a thrifty boy or girl.

" c " if you think the word describes a cheerful boy or girl.

" x " if you don't know what the word is about.

frugal ( ); lively ( ); indolent ( ); lazy ( ); slothful ( ); gay ( ); animated ( ); economical ( ); provident ( ); saving ( ); lethargic ( ); blithe ( ); jolly ( ); vivacious ( ); sunny ( ).

4. *Read the following sentences, noting in each case the underlined word. Then choose the phrase in each case which gives the best sense and underline it.*

(*a*) A milksop is a { kind of sponge cake / timid boy / dairy-man. }

(*b*) A warm reception was given to the mayor when { he arrived / he departed / his house caught fire. }

(*c*) A lecture is a { talk / concert / debate } given to an audience.

(*d*) These mellow pears are { soft and juicy / rotten / nearly ripe.

(*e*) The man lay on the hay in a state of repose,

for he was { resting after his work / tossing with pain / lacing his boots.

(*f*) The millionaire pointed to a priceless vase, saying that

{ it cost sixpence / it cost two pence / it was an heirloom.

(*g*) A mosaic floor is { one made of small coloured tiles / one mentioned by Moses in the Bible / one made of mossy grass.

(*h*) The conscientious girl passed her examination because she

{ was clever / was conscience stricken / worked hard.

(*i*) His daddy playfully called him a little limpet because he

{ walked with one leg in the gutter / had hidden his pipe / clung round his neck.

(*j*) In the wood, we came across a dilapidated house which

{ was unoccupied / had all its windows and doors broken / was a hundred years old.

Exercise 3

In the following 20 sentences, there are errors. In some of the sentences there is one error, in others there are two errors.

Underline all the errors you can find.

(1) There was five books in the desk when I looked.

(2) I am pleased with that job. I done it all myself.

(3) I did not see him very well because it were dark at the time.

(4) My mother was took ill yesterday.

(5) There has been five callers today.

(6) I did not read the story because I hadn't no book.

(7) I seen him last night and he said as he would be late.

(8) My friend and me was going to the Pictures when we saw his father.

(9) Don't walk so quick—I am tired.

(10) Five girls were hear yesterday.

(11) These is our rulers and we are keeping them.

(12) Neither of those three coats is mine.

(13) It has been raining heavy all night and the river has overflown its banks.

(14) Has anyone lost their pen ?

(15) Look at my book; it is different to yours.

(16) Mary is the oldest of us two.

(17) There weren't no animals in the Park, so we was disappointed.

(18) This coat his mine, I can tell by the torn pocket.

(19) I am pleased to see you. Shall you come in ?

(20) The farmer shared the apples amongst us two.

Exercise 4

Punctuate the following story in which all punctuation marks, except the full stops, have been left out:—

One day a woodpecker was eating honey high up in the branches of a tree. On the ground below sat a frog watching and wishing for the feast.

At last finding that the bird was not going to offer him any he said Could you not spare a little of that honey for me.

Well come up here said the woodpecker and you shall have all you want.

But how shall I get up said the frog I cannot fly and I cannot climb.

The woodpecker thought for a moment then said Take hold of that vine and I ll pull you up.

The frog found a little bucket near by. He fastened it to the vine got in and called Now pull.

K. ARITHMETIC TEST I (SKILLS)

Here are 30 sums. Be careful to note whether you have to add, subtract (take away), multiply (times) or divide (share). Work down the columns one after another as quickly as you can.

1. Add:
71
54
43
31

2. Add:
94
95
82
16

3. Add:
152
987
369
436

4. Add:
768
129
993
353

5. Subtract:
176
150

6. Subtract:
648
559

7. Subtract:
7078
6980

8. Subtract:
13105
8006

9. Add:

lbs.	ozs.
3	14
1	12
2	6

10. Add:

hrs.	mins.
5	45
4	30
6	15

11. Add:

cwts.	qrs.	lbs.
1	0	10
2	1	3
1	1	12

12. Add:

gals.	qts.	pts.
4	3	1
5	0	0
2	2	1

13. Subtract:

£	*s.*	*d.*
7	10	4
5	14	5

14. Subtract:

lbs.	ozs.
5	3
2	12

15. Subtract:

gals.	qts.	pts.
4	2	1
1	3	0

16. Subtract:

tons	cwts.	qrs.
13	3	2
10	14	1

17. Multiply:
9534
12

18. Multiply:
5350
500

19. Multiply:
769
76

20. Multiply:
6307
198

21. Multiply:

£	*s.*	*d.*
5	6	3
		9

22. Multiply:

yds.	ft.	ins.
3	2	10
		11

23. Multiply:

cwts.	qrs.	lbs.
2	1	8
		4

24. Divide:
£ *s.* *d.*
8) 10 3 4

25. Divide:
yds. ft. ins.
6) 10 1 0

26. Divide:
tons cwts.
5) 43 5

27. Divide:
8) 24896

28. Divide:
9) 84680

SPELLING

Do not start this Test until you are told to do so.

There are 10 minutes for this Test: you will be told when to begin and when to stop.

Look at these words. Some are wrongly spelt: others are correctly spelt.

Put a × after each word spelt wrongly.

Put a √ after each word spelt correctly.

(1) wharf	(14) Britain	(27) deny	(39) genuine
(2) bonnett	(15) fortenight	(28) glorius	(40) application
(3) juce	(16) guilty	(29) insain	(41) traveler
(4) situated	(17) lodge	(30) attention	(42) extraordinry
(5) congratulate	(18) practicle	(31) elepfant	(43) fatigue
(6) telegramme	(19) sinserely	(32) lodging	(44) audience
(7) aweful	(20) equally	(33) discourage	(45) clauze
(8) Tusday	(21) agreable	(34) inevittable	(46) knowledge
(9) collar	(22) modest	(35) contemt	(47) intence
(10) jugde	(23) handkerchief	(36) announce	(48) scrible
(11) occured	(24) February	(37) cerstificate	(49) associate
(12) razor	(25) marriage	(38) regiment	(50) fulfill.
(13) distress	(26) acre		

L. ARITHMETIC TEST II

1. I spend in a shop 3/6d., 2/6d. and 1/6. How much change should I get from a ten shilling note?

change. Ans.

2. From $6\frac{1}{2}$ take $4\frac{1}{4}$.

Ans.

3. Which is the least, $1\frac{1}{4}''$ or $1\frac{1}{8}''$ or $1\frac{1}{2}''$?

Ans.

4. How many lbs. are there in 2 stones, 3 lbs.?

.... lbs. Ans.

5. How many half ozs. are there in 1 lb. $2\frac{1}{2}$ ozs.?

.... half ozs. Ans.

6. What is the change from half-a-crown after paying 3 bus fares at $2\frac{1}{2}$d. each and 5 bus fares at $1\frac{1}{2}$d. each ?

change. Ans.

7. Write in figures: twenty nine thousand and seventy six.

Ans.

8. What is the cost of $\frac{3}{4}$ lb. of tea at 2/4d. per lb. ?

Ans.

9. What is the cost of 4 yds. of ribbon at $10\frac{3}{4}$d. per yard ?

Ans.

10. Which is the greatest, $\frac{3}{4}''$ or $\frac{3}{8}''$ or $\frac{1}{2}''$?

Ans.

11. From $3\frac{7}{10}''$ take $3\frac{4}{10}''$.

Ans.

12. How many quarter pints are there in a quart ?

quarter pints. Ans.

13. Add $\frac{1}{2}''$ and $\frac{3}{8}''$.

Ans.

14. How many yards, feet and inches are there in 104 ins. ?

.... yds. .... ft. .... ins. Ans.

15. Add $2\frac{1}{4}''$ and $1\frac{3}{8}''$.

Ans.

16. Peter had 2301 stamps: he gave 3 friends 15 each and received a present of 24. How many has he now ?

Ans.

17. My grandfather was born in 1874. How old will he be in 1940 ?

Ans.

18. If the school clock is 13 mins. fast, what is the correct time when the clock shows five minutes past three ?

Ans.

19. How many gals. qts. pts. are there in 108 pts. ?

..........gals. ....qts. .... pts. Ans.

20. How many pence are there in £3 14s. 2d. ?

pence. Ans.

21. At 1/11d. per yard, what will 4½ yards of cloth be worth ?

Ans.

22. A girl leaves home at twenty to nine to go to school. She is away from home for 3 hours 40 minutes. What time does she arrive back at home ?

Ans.

23. I mount 14 steps when I am going to bed. Each step is 7½″ high. How high is my bedroom above the ground floor ? (Give the answer in ft. and ins.)

.... ft. .... ins. Ans.

24. What is the value of a sheet of 480 three-halfpenny stamps ?

Ans.

25. My motor runs 4 miles on a pint of petrol. How many gallons do I use to travel 128 miles ?

.... gallons. Ans.

26. How long will it take to walk 15 miles at the rate of 2½ miles per hour ?

hours. Ans.

27. Write in figures two million five hundred and seven thousand one hundred and twenty eight.

Ans.

28. 4 gals. of milk are put into 64 bottles. How much is there in each bottle ?

pts. Ans.

29. A milkman leaves 96 bottles of milk at one school, 120 at another school, and 72 at another school. If each bottle contains $\frac{1}{3}$ of a pint how many gallons of milk does he leave at the three schools altogether ?

.... gallons. Ans.

30. How many furlongs are there in 2 miles 1 furlong 110 yards ?

furlongs. Ans.

31. Four boys in a relay team run equal distances in the race. If the total distance of the race is $\frac{1}{4}$ mile, how many yards does each boy run ?

yards. Ans.

32. A plan is drawn on the scale of $\frac{1}{8}''$ to one foot. What is the distance round a room which measures $1\frac{3}{8}''$ by $\frac{7}{8}''$ on the plan ? (remember a room has 4 sides).

.... feet. Ans.

33. By how many yards is 2 furlongs 120 yards short of $\frac{1}{2}$ mile ?

yards. Ans.

34. What is the cost of $3\frac{1}{2}$ lbs. of wool at $6\frac{1}{2}$d. per oz. ?

Ans.

35. For every shilling that a boy puts into the bank, his father puts in 1/6d. for him. When there is £1 in the bank, how much of it has the father put in ?

Ans.

36. I spent 2/6d. buying an equal number of halfpenny and penny stamps. How many of each kind did I buy ?

stamps. Ans.

37. You can buy a bundle of 50 scholars tickets to use on the bus at a cost of 2/6d. A boy uses 4 tickets a day. How much does this cost for a week of 5 days ?

Ans.

38. A map is on the Scale of 4 miles to one inch. How far apart are two villages which are $4\frac{3}{8}''$ apart on the map ?

miles. Ans.

39. $4\frac{1}{2}$ tons of sand are put into 80 bags. How many lbs. are there in each bag ?

lbs. Ans.

40. What shall I save by paying £4 17s. 6d. for a bicycle instead of paying 10/- deposit and 2/6d. per week for 42 weeks ?

Ans.

INSTRUCTIONS TO MARKERS

English

One mark for every correct answer except in the case of

(1) Question 4, Exercise 2, when any correct answer will carry 2 marks.

(2) Spelling, when the mark to be carried forward will be the score less 20. (By this method, chance scoring will be handicapped and the good speller will not be penalised.)

Arithmetic

One mark for each correct answer in Arithmetic I.

Two marks for each correct answer in Arithmetic II.

No marks for any other than the correct answer in any case.

Each candidate's mark for English and Arithmetic will be (1) corrected for age, (2) assessed against the performance of the group and the final mark thus obtained will be his attainment score.

This age correction and individual assessment will be obtained from a graphical analysis of the results of the whole group of candidates. By this means, equal weight will be given to English and Arithmetic in determining the candidate's attainment score. The attainment score thus obtained will then be added to the candidate's intelligence score in terms of standard deviation, to determine the final order of candidates.

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